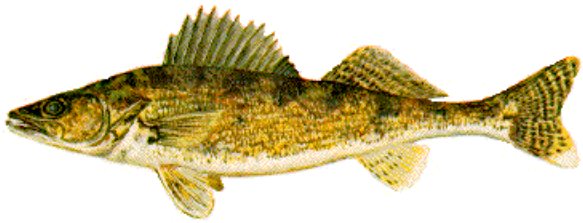

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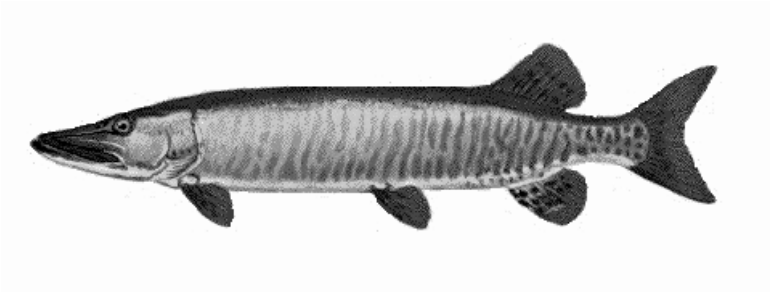

Thomas A. Cichosz

Administrative Report # 91

Treaty Fisheries Assessment Unit
Bureau of Fisheries Management
Madison, Wisconsin
October, 2019

Walleye illustration Virgil Beck

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INTRODUCTION

The northern portion of Wisconsin, encompassing 22,400 square miles and including all or parts of 30 counties, was ceded by the Lake Superior Chippewa Tribes to the United States in the Treaties of 1837 and 1842 (Figure 1). Although the lands were ceded to the United States, the Chippewa Tribes retained hunting, fishing, and gathering rights throughout this area (USDI 1991). The Wisconsin Ceded Territory contains 77% of Wisconsin's lakes accounting for 53% of the total inland lake surface acreage in Wisconsin (Staggs et al. 1990). Of lakes within the Ceded Territory, over 900 contain walleye (*Sander vitreus*) and more than 600 contain musky (*Esox masquinongy*), and the vast majority of naturally reproducing walleye and musky populations are found within the Ceded Territory.

Figure 1. Map of Wisconsin showing the Ceded Territory (shaded).

Walleye and muskellunge are tremendously popular with Wisconsin anglers and are important economically. Chippewa tribal members rely on these same fisheries for preservation of their cultural heritage and as a food source. In 1983, the United States Court of Appeals for the Seventh Circuit affirmed the rights of six Wisconsin Chippewa Bands (Bad River, Lac Courte Oreilles, Lac du Flambeau, Sokaogon, Red Cliff, and St. Croix) to fish off-reservation waters in the Wisconsin Ceded Territory. Tribal fishing uses traditional methods (e.g. spearing and netting) as determined by Treaties of 1837 and 1842 between the Bands and the United States government. Since affirmation of tribal fishing rights in 1983 the Wisconsin Department of Natural Resources (WDNR) has worked to integrate tribal harvest opportunities with sport fisheries in the Ceded Territory.

To facilitate and manage shared tribal and recreational angler harvest, an intensive data collection and analysis effort began in 1987. The program evolved as knowledge of unique aspects of the Ceded Territory shared fisheries increased and developed into the current program in 1990. The primary goal is to collect information essential to protecting Ceded Territory fish populations from over-exploitation by the combined tribal and recreational fisheries.

As part of this effort WDNR works with the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) to establish safe harvest quotas for walleye and muskellunge and to monitor the shared fisheries throughout the Ceded Territory. The majority of tribal harvest occurs during spring while walleye and muskellunge are congregated in shallow water to spawn and are readily taken by spear. A smaller number are harvested throughout the remainder of the year with a variety of capture methods including spearing, gill netting, fyke netting, set-lining, and angling. Netting and spearing are highly efficient methods and, unlike low efficiency methods such as angling, are not self-regulating (Beard et al. 1997, Hansen et al. 2000). Based on the inclusion of high efficiency tribal harvest in these fisheries, over-exploitation is a strong possibility in the absence of intensive management and could result in long-lasting and potentially irreversible damage.

Wisconsin DNR gathers data from a representative sample of lakes throughout the Ceded Territory each year in order to assess abundance and stability of walleye populations. Walleye populations are evaluated by WDNR using three primary methods: spring adult and total population estimates, fall age-0 (young-of-year) relative abundance estimates, and creel surveys of angler catch and

harvest. When combined, these methods provide information on the current harvestable population, an indication of the future harvestable population, and the degree of exploitation in the walleye fishery. Wisconsin DNR also conducts muskellunge and black bass *Micropterus* spp. population estimates each year and estimates harvest of these species via creel surveys; WDNR does not quantify recruitment of these species via young-of-year (YOY) surveys.

Population estimates are critical to the management of Ceded Territory fisheries. Accurate population estimates allow calculation of "safe harvest" levels that allow harvest while minimizing the potential of jeopardizing a species' future abundance or persistence.

Creel surveys provide vital information about the use of fisheries by recreational anglers, including angling effort, catch, and harvest; Estimates from surveyed lakes can be extrapolated across larger areas (e.g. Ceded Territory). When coupled with population estimates, creel harvest data can be used to estimate angler exploitation for individual species. The WDNR treaty fisheries program focuses primarily on game species (walleye, muskellunge, largemouth *Micropterus salmoides* and smallmouth *Micropterus dolomieui* bass, and northern pike *Esox lucius*), but creel information on all species is recorded.

In support of this effort, data is collected and provided by GLIFWC and the United States Fish and Wildlife Service (USFWS) which conduct spring adult population estimates and fall age-0 surveys on additional lakes each year. Tribal harvest data is made available by GLIFWC which censuses open-water tribal harvest of all species and conducts periodic creel surveys to assess winter harvest of muskellunge through the ice.

This annual report summarizes WDNR efforts related to management of the shared Ceded Territory fishery from early 2017 through early 2018. In doing so, it reports on one 'annual cycle' of work related to management of these fisheries. The typical annual cycle begins with establishment of safe harvest levels prior to spring spearing activities, includes conducting creel surveys, population estimates, and YOY walleye surveys on selected lakes, and results in summarization of tribal and angler exploitation rates for Ceded Territory lakes[1].

[1] For the purposes of this report 'Tribal' refers to catch and harvest by traditional methods used by tribal fishers (e.g. spearing and netting); 'Angler' indicates catch and harvest by hook and line, and may include tribal members angling during open seasons if interviewed during creel surveys.

METHODS

Estimation of Population Size

With more than 900 walleye lakes and 600 muskellunge lakes in the Wisconsin Ceded Territory it is logistically impossible to obtain precise population estimates from all lakes in a single year. In addition, fish populations in general and walleye populations in particular are extremely variable and can change dramatically from year to year. Therefore, WDNR selects several lakes each year for walleye population estimates and corresponding nine-month creel surveys[2]. The lakes sampled by the WDNR within the Ceded Territory during 2017-18 were chosen using a stratified random design considering size, historic level of tribal harvest, and primary walleye recruitment source. Of the lakes sampled each year, four are 'trend lakes' which are evaluated every three years to provide meaningful data on temporal trends within walleye populations; trend lakes sampled in 2017 were Pine (Iron Co.), Big Arbor Vitae (Vilas Co.), Balsam (Polk Co.) and Two Sisters (Oneida Co.) lakes. In addition, at least one large lake or lake chain is chosen to be surveyed each year. In 2017 the Twin Lake Chain (includes North and South Twin lakes, Vilas Co.), Big Eau Pleine Reservoir (Marathon Co.), Nelson (Sawyer Co.), Pine (Forest Co.), and Pickerel (Langlade Co.), lakes were large waters successfully sampled.

The continuing randomized survey of lakes throughout the history of this program (Appendix A) provides data necessary for successful management of the shared fisheries. Data from lake surveys is used to estimate walleye population size and derive safe harvest levels, estimate tribal and angler harvest and exploitation rates, examine temporal and spatial trends in walleye populations and angler effort, and maintain up to date characterizations of population status for each lake.

Walleye

Walleye spawning population estimates[3] for various lakes in the Ceded Territory were made using a standard mark-recapture methodology. Walleyes were initially captured for marking using fyke nets shortly after ice out. Each fish was measured (total length; inches and tenths) and marked with one

[2] Creel surveys are conducted from the first Saturday in May through early March and correspond to the Wisconsin open season for game fish species. The month of November was excluded from analyses due to poor ice conditions and low angler effort.

[3] Spawning population estimates may be less than adult population sizes if all adults do not spawn in every year. The degree to which this occurs in Wisconsin is currently unknown and may vary by lake.

of two lake specific fin clip; two clips were used in each lake to classify fish as either ‘adult’ or ‘juvenile’. Adult (mature) walleyes were defined as all fish 15” or longer and all fish for which sex could be determined (regardless of length). Walleye of unknown sex less than 15” long were classified as juvenile (immature). In lakes where previous estimates of walleye spawner abundance were available, the goal was to mark 10% of the anticipated spawning population. Where no preliminary abundance estimate was available, at least one walleye per acre of lake surface area was targeted for marking. Marking continued until the target number was reached or spent females began appearing in the fyke nets.

Two electrofishing recapture runs were conducted in each lake and the data used to estimate abundance of the spawning or total walleye population. Due to rapid dispersal and decreased vulnerability of adult walleye following spawning, only mark-recapture results from the first electrofishing recapture run were used to estimate spawning walleye abundance; results from the second electrofishing recapture run could augment those results when estimating total walleye population abundance.

Walleyes were initially recaptured with AC electrofishing gear within one week (typically 1-4 days) after netting and marking were completed. In each lake, the entire shoreline (including islands) was sampled to ensure equal vulnerability of marked and unmarked walleyes to capture. All walleyes in the captured were measured and examined for marks; in most lakes, any unmarked walleyes collected in the first electrofishing run were fin clipped accordingly for the lake and fish maturity. A second whole-shore electrofishing recapture run was conducted approximately 1-4 weeks after the first electrofishing run.

Based on electrofishing recapture data, population estimates were calculated with the Chapman (1951) modification of the Petersen Estimator as:

$$N = \frac{(M+1)(C+1)}{(R+1)}$$

where N was the population estimate, M was the number of fish marked and released, C was the total number of fish captured and examined for marks in the recapture sample, and R was the total number of marked fish observed in C.

The Chapman Modification method was used because it provides more accurate population estimates in cases when R is relatively small (Ricker 1975). Walleye population and variance estimates

were calculated by length-class (≤ 11.9", 12-14.9", 15-19.9", and ≥ 20.0") and summed accordingly to estimate adult and total walleye abundance.

Fish population size structure is described using proportional stock density (PSD) and relative stock density (RSD) as reviewed by Anderson et al. (1996). Walleye size data were analyzed to compare proportions of both quality (PSD) and preferred (RSD) length fish gathered in spring surveys (April and May); data were limited to spring surveys to minimize bias associated with fish growth throughout the year and to best characterize the size structure of walleye populations near the outset of the harvest seasons. For the purpose of this report stock, quality and preferred walleye lengths were set at 12, 15 and 18 inches, respectively. Walleye length data were taken from WDNR statewide PSD/RSD database. Proportional stock density (PSD) is calculated as:

$$PSD = \frac{\text{number of fish} \geq 15 \text{ inches}}{\text{number of fish} \geq 12 \text{ inches}} X\ 100$$

Relative stock density (RSD) is calculated as:

$$RSD = \frac{\text{number of fish} \geq 18 \text{ inches}}{\text{number of fish} \geq 12 \text{ inches}} X\ 100$$

Muskellunge

Muskellunge population estimates were conducted over a two-year period, with marking in year-1 and recapture in year-2. In year-1, muskellunge were marked during fyke netting and electrofishing efforts throughout the sampling season. All muskellunge 20" and larger were given a primary fin clip (the same clip given to adult walleye and bass). Muskellunge less than 20" long were given an alternate fin-clip (generally top caudal). In year-2, muskellunge were recaptured using fyke nets in mid-May, to coincide with the muskellunge spawning season. Adult muskellunge population estimates (considered all sexable fish of any size, plus all fish of unknown sex ≥30" at the time of marking) were made using Chapman modification of the Petersen estimate:

$$N = \frac{(M+1)(C+1)}{(R+1)}$$

where N is the estimated adult population size; M is the total number of muskellunge marked in the lake in year-1 equal to or larger in length than the smallest sexable fish; C is the number of muskellunge re-captured in year-2, excluding fish smaller than the minimum length counted in year-1 plus 2 inches; and R is the number of marked fish recaptured (Wisconsin Technical Working Group 1999; Margenau and AveLallemant 2000).

Largemouth and Smallmouth Bass

In a subset of sampled lakes designated as "comprehensive survey" lakes, largemouth *Micropterus salmoides* and smallmouth *Micropterus dolomieu* bass encountered during fish surveys were marked by fin clips. Bass larger than 12.0" were given the same primary (adult) fin-clip as was given to walleye in the same lake; bass 8.0- 11.9" were given the secondary (juvenile) fin-clip for the lake. In these lakes, fyke nets were set just after ice-out in the spring and again after the first electrofishing recapture run. A total of four electrofishing surveys were conducted in each lake. The first electrofishing run was conducted within a week of pulling the early fyke nets. The second run was conducted approximately two weeks after the first electrofishing run. Third and fourth electrofishing runs were conducted at approximately weekly intervals thereafter between mid-late May and mid-June. The entire shoreline of the lake (including islands) was sampled. Bass populations were estimated after both the third and fourth runs. For each bass species population estimates were calculated for various size classes (8.0-13.9", 14.0-17.9" and ≥18.0") using the same Chapman modification of the Petersen estimator as described for walleyes. The recapture run yielding the population estimate with the lowest coefficient of variation is reported.

Establishment of Safe Harvest

The Wisconsin joint fishery is managed by calculating total allowable catch and 'safe harvest' levels for walleye and muskellunge on a lake-by-lake basis. Safe harvest is set such that the risk of exceeding 35% exploitation for walleye or 27% for muskellunge is less than 1-in-40 (Hansen 1989; Hansen et al. 1991). This risk-management system differs from a quota system, which would potentially close fisheries once a harvest cap was reached. Beginning in the spring of 2015 management of angler exploitation began using a ceded territory wide 3 walleye/day angler bag limit and more restrictive size

limits than previously in place for most lakes. This system replaced the “sliding bag-limit” system in place since 1990 under which bag limits ranged from 1-5/day and were determined based upon tribal declarations and harvest (Cichosz 2016).

Safe harvest levels are set on all Ceded Territory walleye and muskellunge lakes using the most accurate population estimates available. The most reliable estimates are clearly taken from mark-recapture estimates performed in the same year for which safe harvest is calculated. However, because the temporal overlap of the spearing season and spring population estimate sampling make this logistically impossible, these population estimates are used to estimate abundance for the following two years. In addition, given the year-to-year variability associated with fish populations, safety factors are incorporated to account for the largest potential decrease between years (Hansen et al. 1991). Population estimates older than two years are not considered to accurately represent a lake’s current population and are not directly used to set safe harvest. In this case, an estimate is calculated from a log-linear mixed effects regression model using lake acreage and lake-specific deviations from the overall intercept as predictors of population abundance (Hansen et al. 2015)[4]. Data inputs were limited to the previous 20 years of data, and for lakes with multiple population estimates all individual data points were incorporated into the model (unlike prior regression methods which used all data regardless of age, and averaged population estimates for each lake before their incorporation into the regression model; Hansen 1989). Three regression models are used depending on the primary source of walleye recruitment in the lake (Nate et al. 2000). Separate models are used for: (A) lakes sustained primarily by natural reproduction (NR; Figure 2), (B) lakes sustained primarily through stocking efforts (ST), and (C) lakes with low density populations maintained through intermittent natural reproduction (REM). Figure 2 shows the benefit is using a mixed effects model to better define safe harvest levels in lakes of similar area where measured walleye abundance differs dramatically, with the lake-specific deviations used to apply more harvest where more fish exist, and less harvest where less fish exist. Refer to Appendix B for a complete description of recruitment code designations used for lakes throughout the Wisconsin Ceded Territory. Mixed-effects regression models are used to set safe harvest yearly for the majority of the walleye lakes in the Ceded Territory.

[4] A mixed-effects model was first used for setting of safe harvest in 2016. Prior to 2016 a log-linear regression relying solely on lake area as a predictor of walleye abundance was utilized (Hansen 1989; Cichosz 2016).

A similar method is employed to set safe harvest for muskellunge. Because muskellunge mark-recapture surveys are conducted over a two-year period, a population estimate for a given lake is employed to directly set safe harvest only once. In the absence of a recent population estimate, a simple log-linear regression model is used to make an estimate of muskellunge abundance. However, population predictions in this model are based on lake acreage using all available data (regardless of age) and averages multiple estimates for individual lakes prior to input to the model; a single model is used for all muskellunge waters in the Ceded Territory (Figure 3).

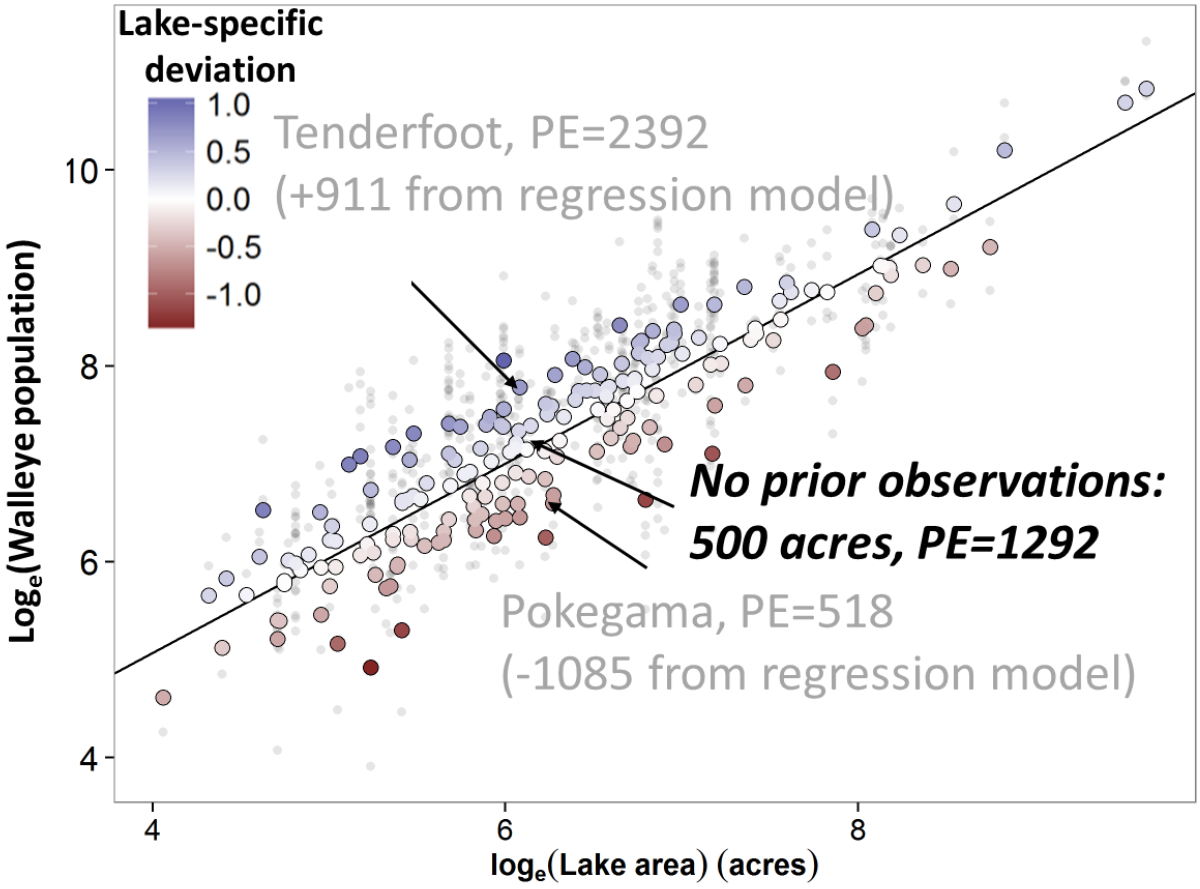

Figure 2. Generalized view of how lake-specific deviations in a mixed effects model better differentiates high or low-density walleye waters to more appropriately allocate safe harvest relative to the more basic regression model (Hansen et al. 2015). Individual models are developed for Natural, Stocked, and Remnant walleye populations.

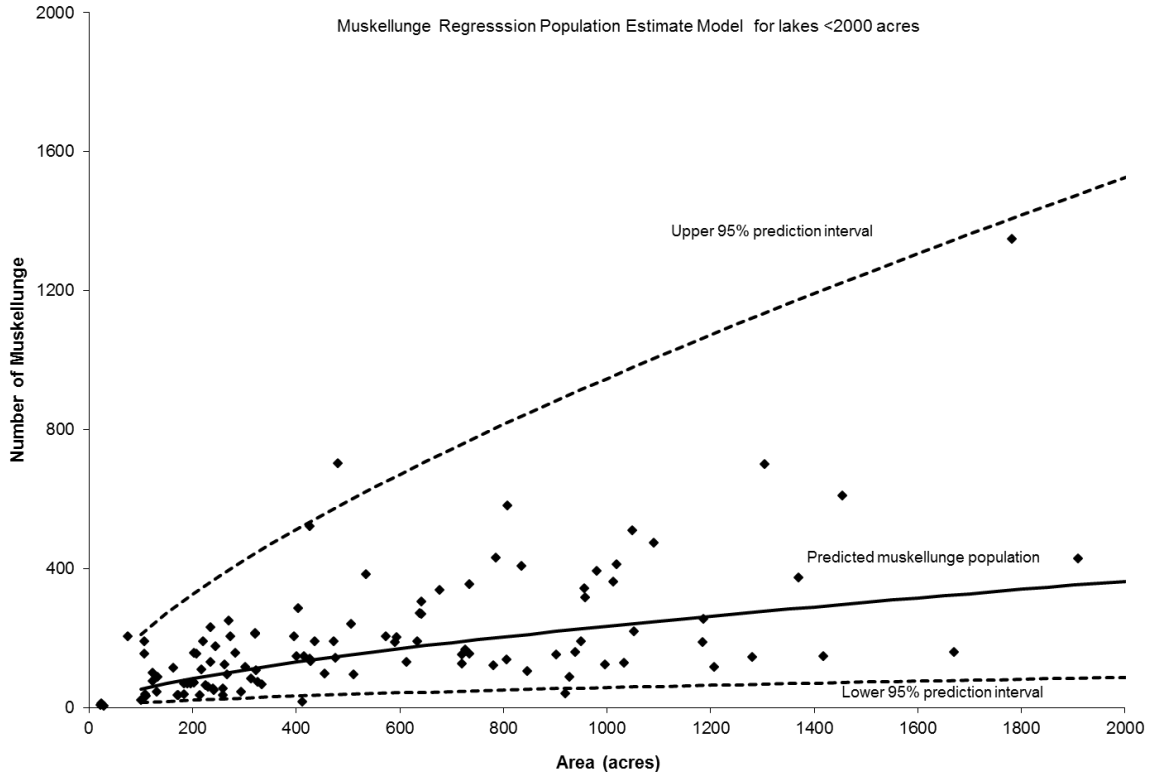

Figure 3. Generalized Regression model used to set 2017 safe harvest levels for muskellunge populations in lakes (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

Estimating Fishing Effort and Harvest

Tribal Harvest and Exploitation

In lakes where current walleye population estimates are available, tribal harvest numbers are used in conjunction with population estimates to estimate tribal exploitation of walleye populations. Tribal harvest numbers for individual lakes are supplied to WDNR by GLIFWC and encompass all tribal harvest methods used (e.g. spring or winter spearing, netting). Tribal exploitation was estimated as the total number of adult walleyes harvested divided by the adult population estimate for the same lake (C/N; Ricker 1975).

Angler Harvest and Exploitation - Creel Surveys

Creel surveys are generally conducted each year in the same lakes in which a walleye population estimate is done. Coordinating efforts in this way allows for year-long recovery in the creel of fish marked during spring population estimates, and subsequently allows for estimation angler exploitation of walleye.

WDNR creel surveys use a random stratified roving access design (Beard et al. 1997; Rasmussen et al. 1998). The surveys were stratified by month and day-type (weekend / holiday or weekday), and creel clerks conducted their interviews at random within these strata. Surveys were conducted on all weekends and holidays, and two to three randomly chosen weekdays per week. Angler effort was recorded twice daily based on instantaneous counts of angler activity.

Clerks counted the number of anglers and recorded effort, catch, harvest, and targeted species from anglers completing their fishing trip. Clerks also measured harvested fish and recorded any fin-clips observed. Only completed-trip interview information was used for analyses. Information from interviews was expanded over the appropriate stratum to provide an estimate of total effort, catch, and harvest of each species in each lake for the year. Creel data were summarized according to lake size, population recruitment source and current state regulations (Appendix C). In cases where lakes were connected (as either defined or undefined chains), creel clerks were not necessarily present at each individual lake on a given day; however, during the interview clerks collected information specific to lakes within the chain thereby enabling creel related estimates to be determined for individual lakes.

Angling effort was estimated for each stratum and summed across all strata to estimate total angler effort for each lake (angler hours/lake). Angler catch and harvest (hours/fish) rates were calculated for each game fish species encountered, giving an indication of average angler success and providing an index of the relative abundance of each species. Species-specific catch and harvest rates were calculated using only species-specific fishing effort. General catch and harvest rates were calculated using total angler effort, regardless of the species targeted.

Tribal and angler walleye exploitation rates were calculated in lakes where adult population estimates and creel surveys were conducted. Angler exploitation rates for adult walleye were calculated by dividing the estimated number of marked fish harvested by the total number of marked fish present in the lake (R/M; Ricker 1975). Although anglers can harvest immature walleye in some waters, only adult

walleye exploitation rates were calculated. Total adult walleye exploitation rates were calculated by summing angling and tribal exploitation.

Young-of-Year Walleye Surveys

Electrofishing for YOY walleyes was done after sunset in early autumn, beginning when water temperatures had fallen below 70° F. In most cases, the entire shoreline of a lake was electrofished and all sub-adult walleyes were examined and measured. Two-sample t-tests were used to test various hypotheses: that YOY density (fish/mile shocked) observed in natural and stocked model lakes was equal during 2017, that within each recruitment model the YOY density observed in 2017 did not differ from the average over the previous 27 years (1990-2016), and that in stocked model lakes YOY density did not differ between those lakes that were stocked and those that were not stocked during 2017. A general linear model was used to evaluate the effects of recruitment model (natural or stocked), year, and the year*model interaction on YOY walleye/mile over time. The interaction term was evaluated as indicative of significant trends over time in YOY walleye/mile for lakes within one or both recruitment models.

Hansen et al. (2004) updated a previous analysis by Serns (1982) to establish a relationship between the number of YOY walleyes collected per mile of shoreline electrofished and their lake-wide density (#/acre) where:

$$Density = 0.0345 * (Catch\ per\ mile)^{1.564}$$

The Hansen et al. (2004) metric of YOY density is used in evaluation of differences between various lake classes (e.g. Natural or Stocked recruitment model lakes). Use of the Hansen et al. metric for this purpose began with the 2006-2007 annual report; in years prior to 2006 the Serns index was used for the same purpose.

To assess any potential for natural reproduction, a portion of lakes classified as ‘stocked’, ‘remnant’, or where the primary component of year class strength is uncertain are selected to receive fish with an internal oxytetracycline (OTC) otolith mark. A proportion of the YOY fish sampled from these lakes in the fall were sacrificed to assess the relevant contribution of stocking to the number of surviving YOY fish and to provide evidence of any contribution by natural reproduction.

RESULTS AND DISCUSSION

Population Estimates and Densities

In 2017, spawning walleye populations were estimated in 31 lakes, ranging in size from 83 to 6,830 acres and representing a range of walleye recruitment categorizations and angler regulations (Table 1; Appendix D). Due to sample size restrictions, separate analyses were conducted to evaluate differences in spawner population size across (1) primary recruitment source (natural, stocked, or remnant; refer to Appendix B) and (2) angling regulations in place during the 2017-18 angling season. Statistical comparisons were made for spawner density (fish/acre) which provides a better comparative measure across lakes of varying size (relative to spawner abundance).

All population estimates were reviewed by a Technical Working Group (TWG) for reliability. Factors considered in determining reliability of estimates included numbers of fish marked and/or recaptured by sex and in total and coefficients of variation associated with derived estimates. In cases where population estimates are not deemed reliable by the TWG, estimates are rejected for use in setting safe harvest levels. For consistency across data groups, any population estimates rejected by the TWG for other purposes were also excluded from summaries and analyses presented in this report.

Consistent with most previous years, differences observed during 2017 in walleye spawner density between lakes in different recruitment classes (natural, stocked, or remnant) were statistically significant (General Linear Model, $P<0.01$). Spawner densities observed in 2017 in lakes dominated by natural recruitment were greater than those in stocked or remnant populations (Tukey-Kramer LS Means, $P<0.01$ and $P<0.01$, respectively); no significant difference was found between mean spawner density in stocked and remnant-model lakes (Figure 6). Analysis of variance indicated no significant differences in spawner density existed between lakes with varying harvest regulations (General Linear Model, $P=0.24$).

There is a statistically significant downward trend in walleye spawner density in natural-model lakes (GLM, Slope =-0.034, $P<0.01$) in the Ceded Territory since 1995[5] (Figure 4) which was not noted previously(Cichosz 2017, Cichosz 2018). A significant downward trend in density of stocked-model walleye waters since 1995 was noted (GLM, Slope=-.031, $P=0.011$; Figure 5), consistent with prior findings.

[5] Data prior to 1995 was excluded due to a difference in the protocol used to select lakes for assessment (Hewett No Date)

Table 1. Lakes surveyed by WDNR crews in spring 2017, with corresponding information on adult (spawning) walleye population abundance and density. Only lakes with population estimates accepted for use by the TWG are shown.

WBIC[1]	County	Lake	Acres	Size Limit (in)	Recruitment Code [2]	Recruitment Model[2]	Adult Pop. Estimate	Adult Density (#/Acre)
Natural Model Lakes								
2406500	Ashland	Gordon	142	1>14	NR	Natural	63	0.44
1881100	Barron	Silver	337	Slot20-24	C-NR	Natural	731	2.17
2742700	Bayfield	Upper Eau Claire	996	18	C-NR	Natural	765	0.77
2133200	Eau Claire	Lake Eau Claire	860	Slot20-24	NR	Natural	4069	4.73
376900	Forest	Lily	213	Slot20-24	NR	Natural	1111	5.22
2949200	Iron	Pine	312	1>14	NR	Natural	1196	3.83
2318500	Iron	Randall	115	1>14	NR	Natural	207	1.80
387200	Langlade	Otter	83	Slot20-24	C-NR	Natural	54	0.64
1427400	Marathon	Big Eau Pleine	6830	Slot20-24	C-NR	Natural	22438	3.29
1588200	Oneida	Two Sisters	719	18	C-NR	Natural	978	1.36
2046500	Sawyer	Windfall	102	Slot20-24	NR	Natural	330	3.24
968800	Vilas	Anvil	398	Slot20-24	NR	Natural	1106	2.78
1545600	Vilas	Big Arbor Vitae	1090	1>14	NR	Natural	4775	4.38
2339900	Vilas	Escanaba	293	28	NR	Natural	1622	5.54
2335300	Vilas	Sanford	88	1>14	NR	Natural	146	1.66
1623801	Vilas	Twin L Chain	3430	Slot20-24	NR	Natural	12814	3.74
Stocked Model Lakes								
388500	Forest	Crane	337	18	ST	Stocked	338	1.00
406900	Forest	Pine	1670	Slot20-24	ST	Stocked	1264	0.76
378400	Forest	Roberts	415	Slot20-24	C-ST	Stocked	625	1.51
2296500	Iron	Mc Dermott	84	Slot20-24	ST	Stocked	50	0.60
2316100	Iron	Sandy Beach	111	Slot20-24	ST	Stocked	121	1.09
1544800	Oneida	Carrol	352	Slot20-24	ST	Stocked	551	1.56
2620600	Polk	Balsam	2054	18	C-ST	Stocked	1032	0.50
2382300	Sawyer	Barber	238	Slot20-24	C-ST	Stocked	450	1.89
2113300	Sawyer	Lake Chetac	1920	18	C-ST	Stocked	4715	2.46
2704200	Sawyer	Nelson	2503	18	C-ST	Stocked	1364	0.54
1545300	Vilas	Little Arbor Vitae	534	1>14	C-ST	Stocked	2059	3.86
Remnant Model Lakes								
2866200	Douglas	Lake Minnesuing	432	1>14	O-ST	Remnant	156	0.36
388100	Langlade	Pickerel	1299	18	O-ST	Remnant	51	0.04
1017400	Lincoln	Silver	95	Slot20-24	NR-2	Remnant	70	0.73
1544700	Oneida	Madeline	159	Slot20-24	REM	Remnant	52	0.32

1 - WBIC is a Water Body Identification Code unique to each lake.

2 – Recruitment Code and Recruitment Model shown are as defined at the end of the 2017 sampling year, using the 2017 data; In previous annual reports Table 1 presented codes/models from the time the population survey was conducted, although 'end-of-year' codes were used elsewhere throughout the report. This change makes handling of recruitment codes/models consistent throughout the entire annual report.

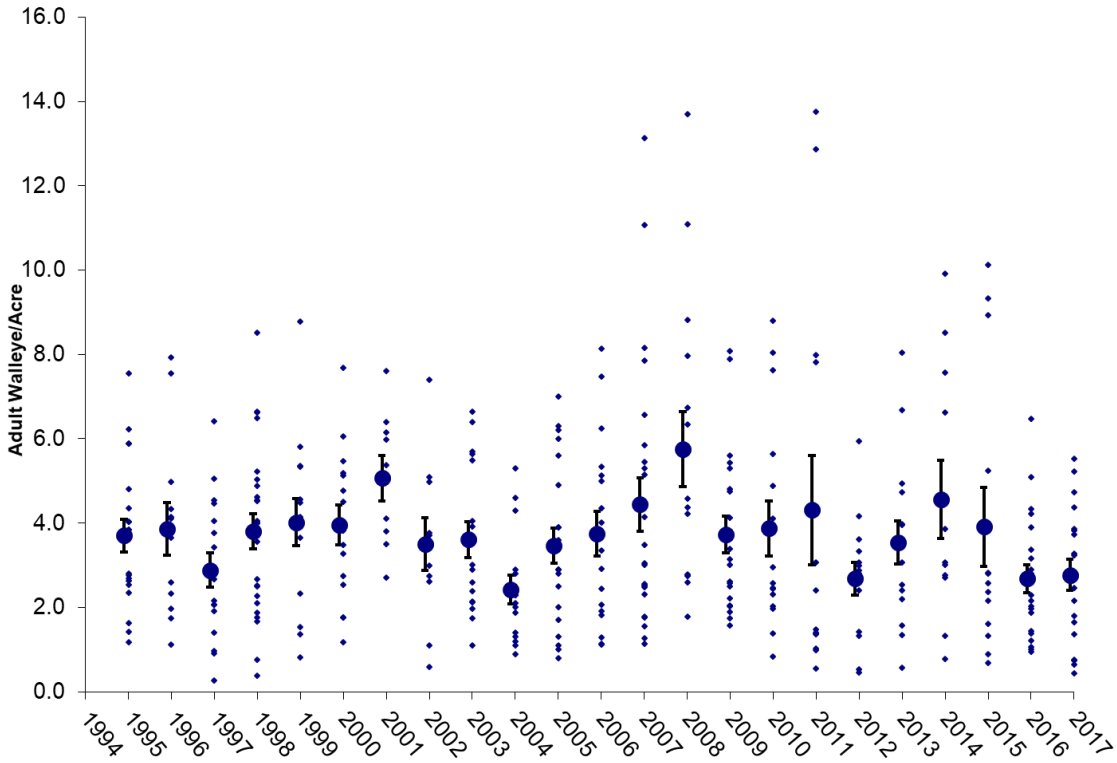

Figure 4. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1995 – 2017. Small circles represent individual lakes; large circles represent yearly means (±SE).

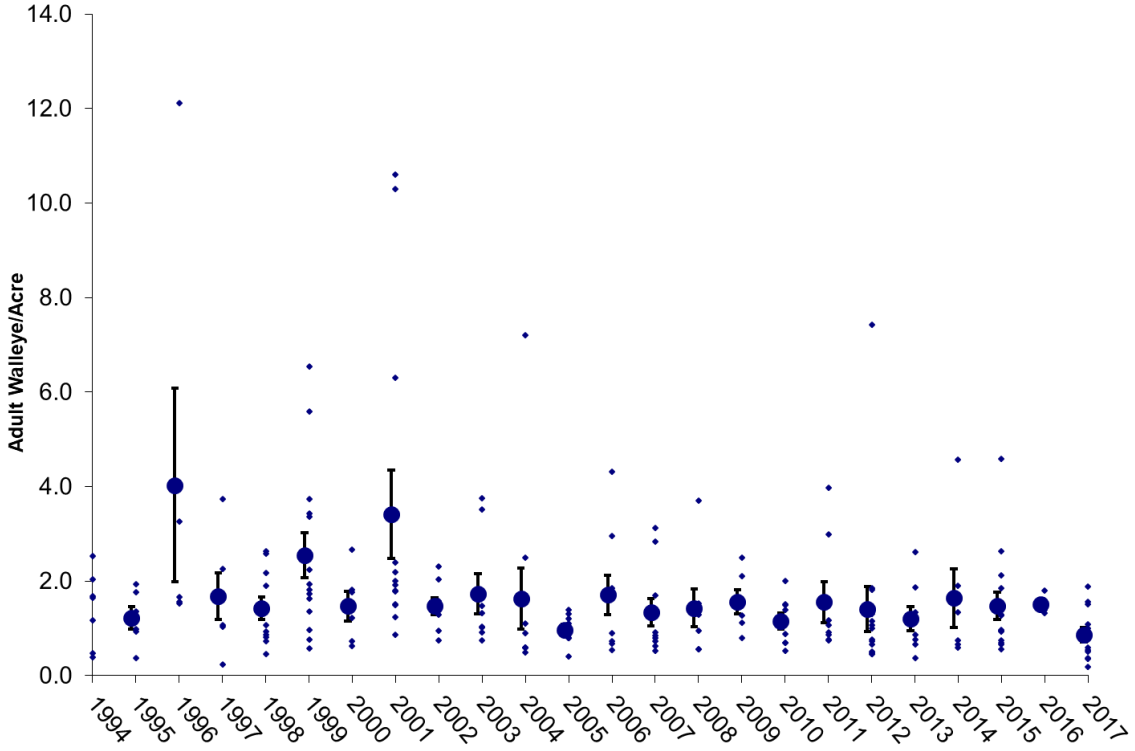

Figure 5. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1995 – 2017. Small circles represent individual lakes; large circles represent yearly means (±SE).

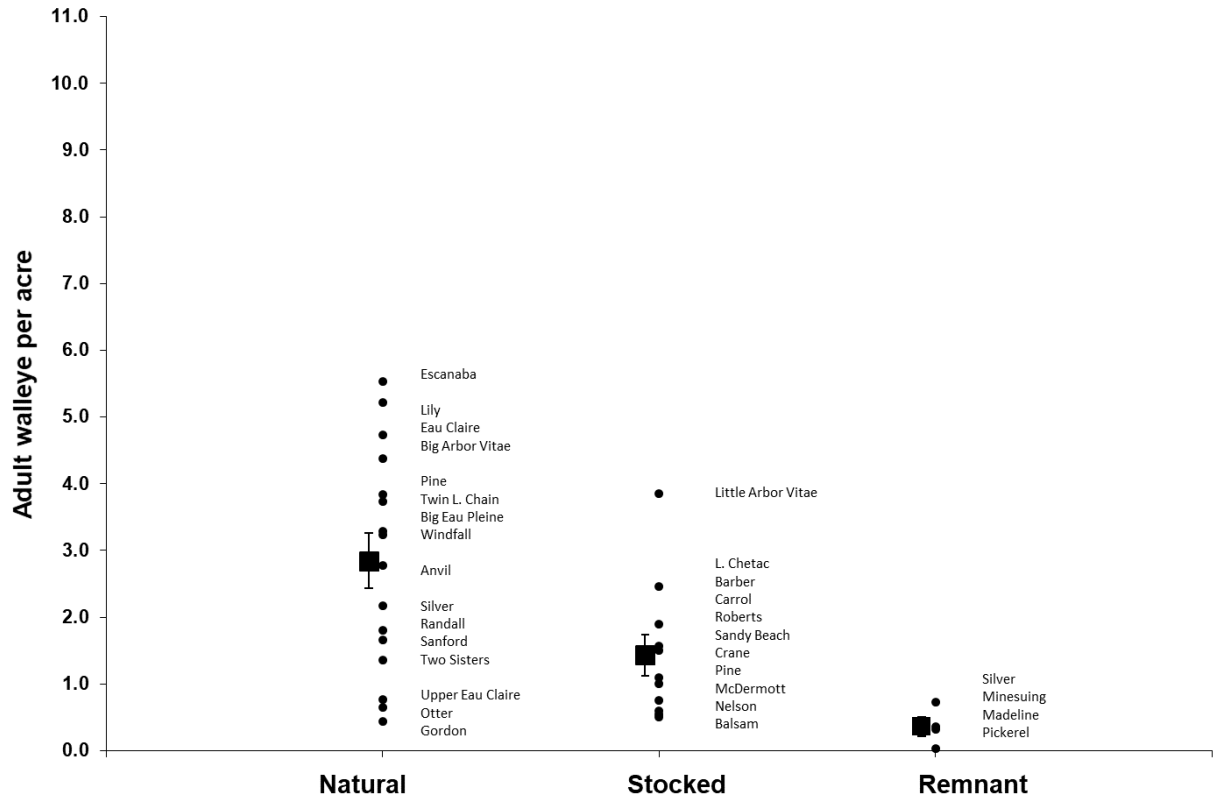

Figure 6. Adult walleye density estimates for lakes sampled by WDNR in spring 2017 based on primary population recruitment source.

Spawning Adult walleye size structure

Spawning adult walleye populations were estimated for each lake by length class in both natural (Figure 7), stocked (Figure 8), and remnant (Figure 9) production model lakes. Natural model lakes generally had higher walleye spawner densities than most stocked model lakes, which in turn had higher spawner densities than remnant model lakes. Stocked and remnant model lake populations typically have larger size structure than is seen in natural model lakes, although that did not appear to be the case for lakes sampled in 2017 when all lake models were dominated by 12-20” walleye with limited abundance of larger or smaller adult fish in the population in most sampled waters.

In natural model lakes spawning walleye abundance was highly variable and the size structure was typically dominated by 12-20” walleye, although a few lower density waters were notably lacking fish in the 12-15” size class, possibly indicative of past recruitment issues (Figure 7). The natural model lakes sampled had overall densities ranging from <1 to nearly 5 fish/acre. Four of 16 sampled lakes had

walleye densities equal to or exceeding 4 fish/acre; of the remaining lakes sampled, six had walleye densities less than 2 fish/acre. Walleye spawning in the 7-11.9 inch category were very limited in relative abundance in most natural production lakes sampled. It is unclear if the limited abundance of small adult walleye in these waters is due to a lack of young fish recruiting into the population, fish simply not maturing at young ages (and smaller size), or some other factor.

In stocked model lakes spawning walleye abundance and size structures were less variable than that observed in natural model lakes (Figure 8). Walleye densities observed in stocked model lakes were less than 3.0 adult fish/acre in ten of eleven lakes sampled in 2017. Despite lower fish densities than those observed in natural model lakes, stocked model lakes generally had a high percentage (e.g. >50%) of the spawning population made up of relatively large fish (>15") available for angler harvest under general statewide regulations. Remnant model lakes sampled in 2017 had lower abundance but similar size structures to those noted in stocked model fisheries (Figure 9).

Data were available for calculation of PSD and RSD-18 for 27 natural, 10 stocked, and 14 remnant-model lakes sampled in 2017 (Table 2). In lakes where walleye regulations involve a 15" minimum size limit, calculating PSD as the percent of stock sized fish over 15" essentially makes this value a comparative tool to evaluate the percentage of harvestable fish across lakes.

There was no discernable pattern in walleye size structure noted in lakes with different recruitment classes during 2017. In natural model lakes observed PSD and RSD-18 values were highly variable, ranging from 11-99 and 0-100 percent, respectively. In stocked model lakes observed PSD and RSD values showed only slightly less variability than natural model lakes (29-95 percent and 8-86 percent, respectively), and the same was true of remnant model lakes sampled in 2017 (PSD and RSD 26-100 percent and 0-100 percent, respectively) (Table 2).

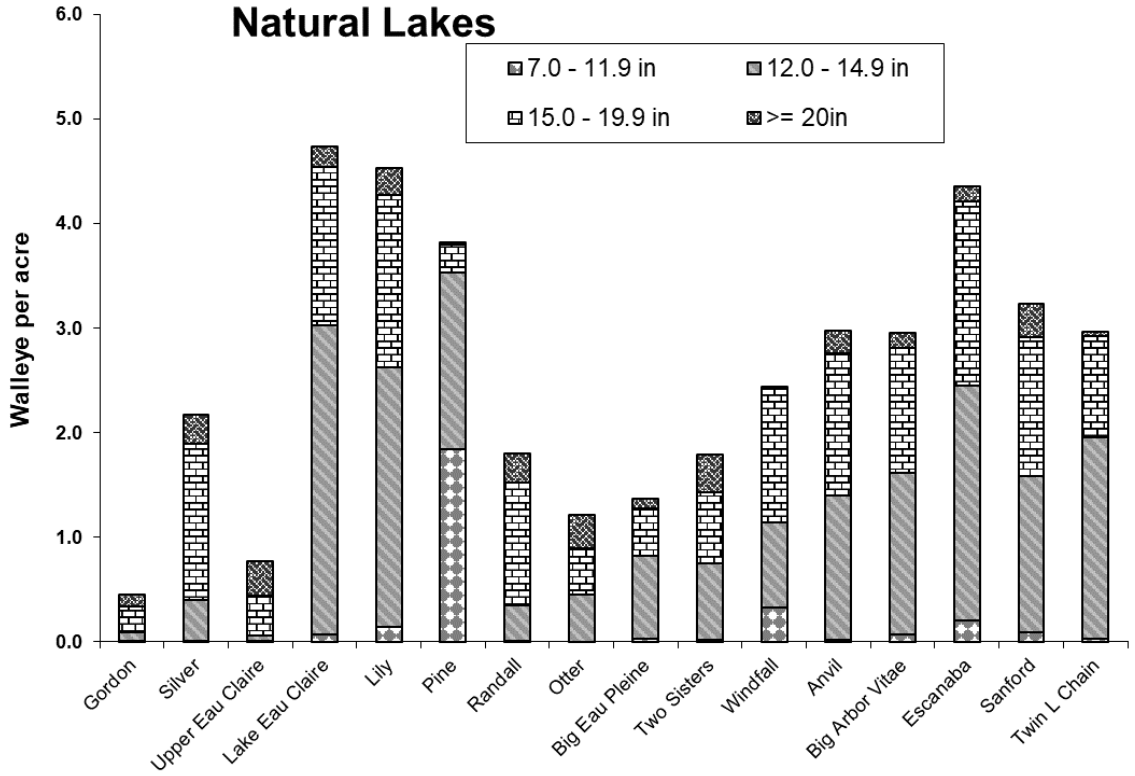

Figure 7. Size distribution of spawning walleye sampled in natural production model lakes during 2017.

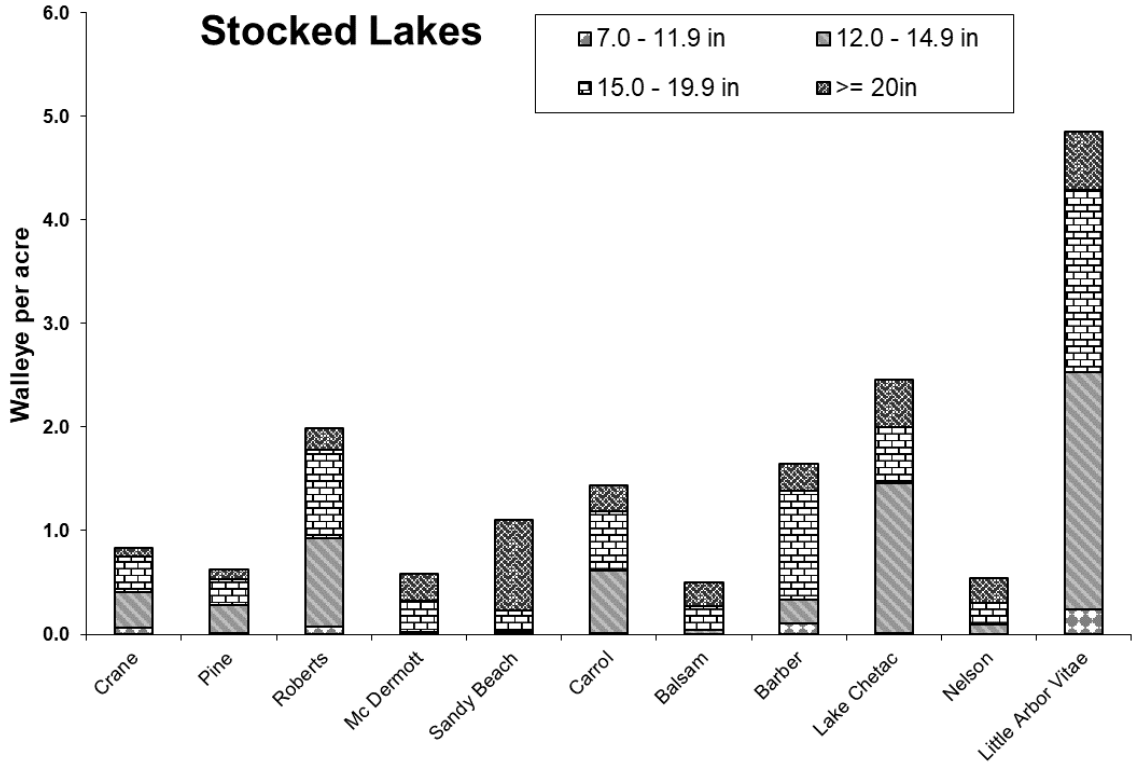

Figure 8. Size distribution of spawning walleye sampled in stocked production model lakes during 2017.

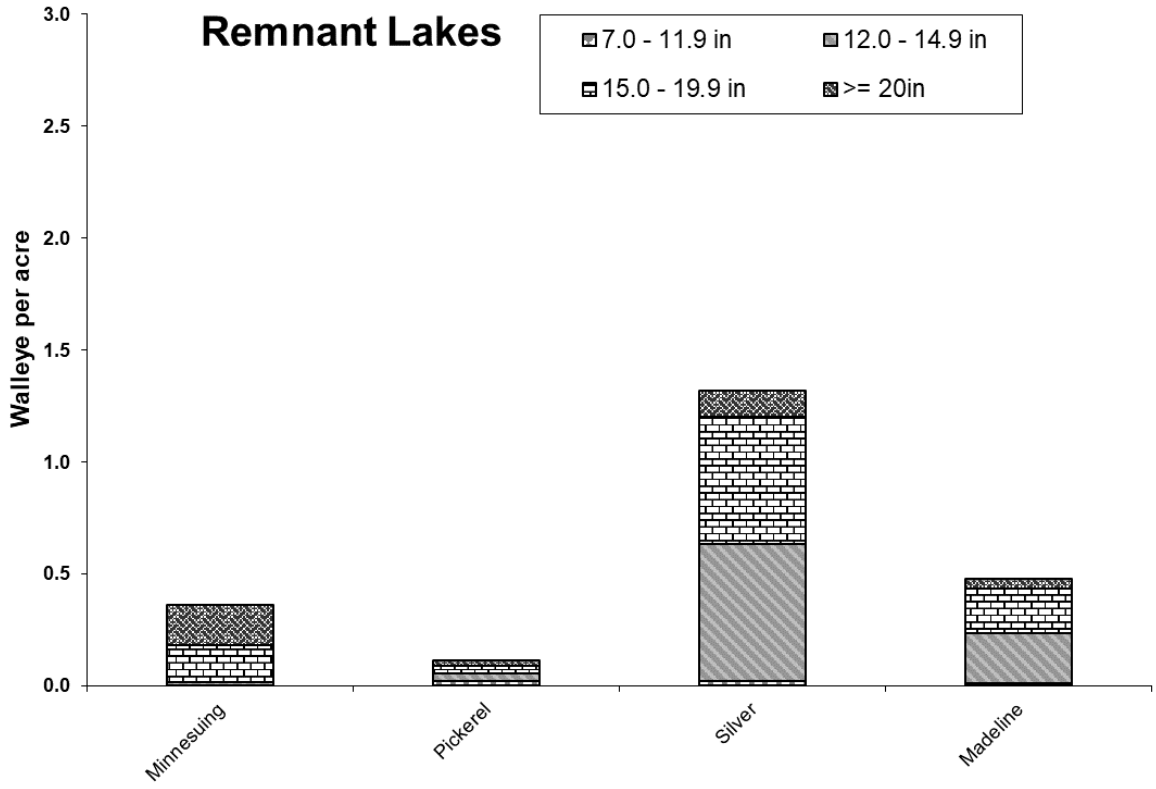

Figure 9. Size distribution of spawning walleye sampled in remnant production model lakes during 2017.

Table 2. Walleye Proportional and Relative Stock Density values for lakes surveyed in spring, 2017.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Natural Recruitment Lakes						
Ashland	Gordon Lake	142	NR	1>14”	61	37
Barron	Silver Lake	337	C-NR	15”min, 20-24 Slot	53	17
Bayfield	Crystal Lake	111	C-NR	15”min, 20-24 Slot	100	100
Bayfield	Lake Owen	1,323	C-NR	18”	56	33
Bayfield	Upper Eau Claire L	996	C-NR	18”	83	58
Chippewa	Cornell Flowage	577	NR	14-18” Slot	20	0
Chippewa	Holcombe Flowage	3,890	NR	14-18” Slot	36	7
Eau Claire	Eau Claire Lake	860	NR	15”min, 20-24 Slot	56	8
Forest	Lily Lake	213	NR	15”min, 20-24 Slot	55	17
Iron	Pine Lake	312	NR	1>14”	11	2
Iron	Randall Lake	115	NR	1>14”	71	44
Langlade	Enterprise Lake	505	NR	15”min, 20-24 Slot	42	12
Langlade	Otter Lake	83	C-NR	15”min, 20-24 Slot	100	91
Marathon	Big Eau Pleine Res	6,830	C-NR	15”min, 20-24 Slot	34	12
Marathon	Lake Wausau	1,918	NR	15”min, 20-24 Slot	20	0
Oneida	Two Sisters Lake	719	C-NR	18”	62	38
Price	Big Dardis Lake	144	C-NR	15”min, 20-24 Slot	98	91
Price	Lower Park Falls Flowage 762	71	NR	1>14”	28	0
Price	Pixley Flowage	334	NR	1>14”	32	20
Sawyer	Lake Chippewa	15300	C-NR	15”min, 20-24 Slot	78	49
Sawyer	Moose Lake	1670	NR	1>14”	33	29
Sawyer	Windfall Lake	102	NR	15”min, 20-24 Slot	49	10
Vilas	Anvil Lake	398	NR	15”min, 20-24 Slot	92	46
Vilas	Big Arbor Vitae L	1090	NR	1>14”	60	22
Vilas	Twin Lakes	2788	NR	15”min, 20-24 Slot	42	4
Washburn	Bass Lake	188	NR	1>14”	38	25
Washburn	Beartrack Lake	65	NR	15”min, 20-24 Slot	100	100
Stocked Recruitment Lakes						
Ashland	English Lake	244	ST	15”min, 20-24 Slot	93	86
Ashland	Spider Lake	103	C-ST	1>14”	42	8
Forest	Roberts Lake	414	C-ST	15”min, 20-24 Slot	95	48
Oneida	Carrol Lake	352	ST	15”min, 20-24 Slot	63	21
Price	Musser Flowage	563	ST	15”min, 20-24 Slot	68	50
Sawyer	Barber Lake	238	C-ST	15”min, 20-24 Slot	58	33
Sawyer	Blueberry Lake	280	ST	15”min, 20-24 Slot	68	61
Sawyer	Lake Chetac	1920	C-ST	18”	29	14
Sawyer	Nelson Lake	2503	C-ST	18”	78	50
Vilas	Little Arbor Vitae	534	C-ST	1>14”	57	28

Table 2 continued on next page.

Table 2. Continued.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Remnant Population Lakes						
Ashland	Upper Park Falls Flowage 760	431	REM	1>14”	26	5
Douglas	Amnicon Lake	426	O-ST	18”	100	100
Douglas	Lake Minnesuing	432	O-ST	1>14”	88	49
Lincoln	Silver Lake	82	NR-2	15”min, 20-24 Slot	86	34
Oconto	Bear Lake	78	O-ST	15”min, 20-24 Slot	96	50
Oconto	Lake John	104	O-ST	18”	100	100
Oconto	Munger Lake	97	O-ST	15”min, 20-24 Slot	71	46
Oneida	Madeline Lake	159	REM	15”min, 20-24 Slot	64	18
Price	Bass Lake	84	O-ST	No Minimum	78	65
Price	Crowley Flowage 802	422	NR-2	1>14”	41	18
Sawyer	Fishtrap Lake	216	O-ST	15”min, 20-24 Slot	47	0
Sawyer	Knuteson Lake	70	REM	15”min, 20-24 Slot	50	0
Taylor	Mondeaux Flowage	416	O-ST	15”min, 20-24 Slot	100	0
Washburn	Bean Lake	100	O-ST	15”min, 20-24 Slot	100	100

Unlike most other years where average size structure was generally smallest in natural model lakes, stock size structure in 2017 was generally similar in natural, stocked and remnant model lakes (Figure 10). Mean PSDs for natural, stocked, and remnant model lakes were 61, 71 and 64, respectively. Mean RSD-18s for natural, stocked, and remnant model lakes were 32, 41 and 28, respectively. Differences in PSD and RSD-18 values across lakes in various recruitment models could be caused by any number of potential factors including, but not limited to, high or low recruitment levels of younger/smaller fish, differing angler regulations, harvest patterns and harvest levels, or differences in survival or year class strength leading to differences in the relative abundance of quality (PSD, ≥15”) or preferred (RSD, ≥18”) sized fish in some lakes relative to others.

Mean annual PSD values in both natural and stocked model lakes are trending upward over time; the regression of natural model lakes over time has a significant upward slope of 0.79 ($p<0.01$); the regression of stocked model lakes has a non-significant upward slope of 0.42 ($P=0.12$; Figure 11). PSD and RSD values are highly correlated in both natural and stocked model waters over time ($r2>0.7$), so the trends presented for PSD values are very similar to those observed for RSD values. The implication of increasing trends in PSD (and RSD) is that, over time, both natural and stocked model lakes are seeing an increased percentage of larger walleye in the overall population. The observed trends in PSD values could be due to introduction and increased use of size selective fishing regulations over time (e.g.

minimum or protective slot categories), declining recruitment of young fish into the population, increased growth rates, or other factors.

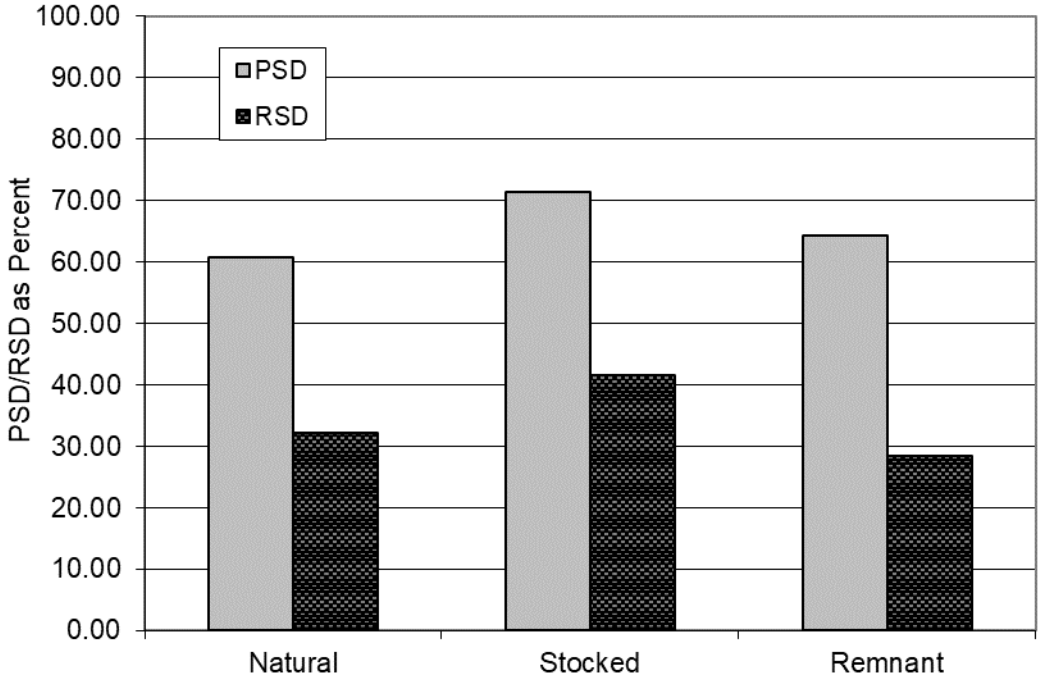

Figure 10. Comparison of mean PSD and RSD-18 values across lakes in various walleye recruitment models for lakes sampled in 2017.

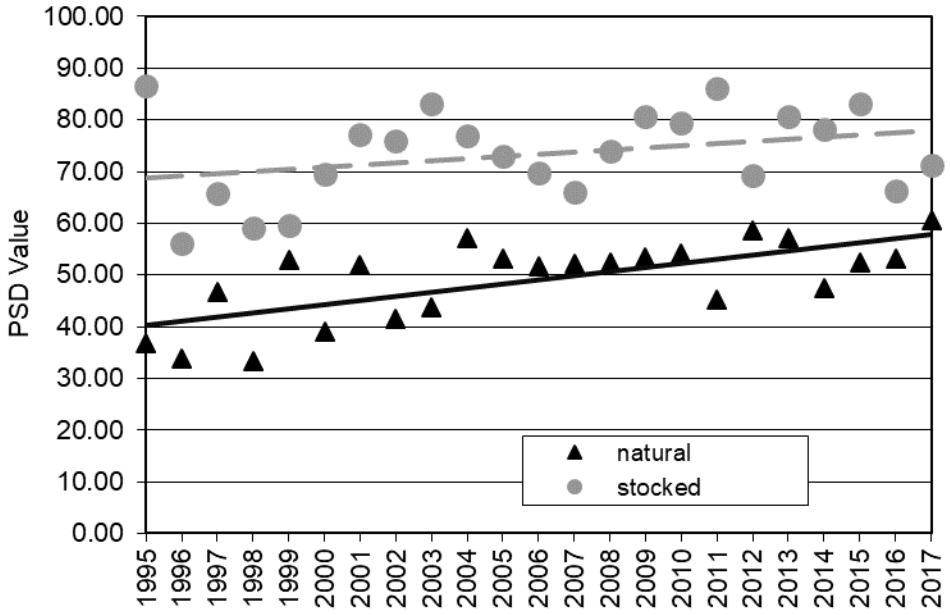

Figure 11. Trends in PSD values observed for walleye in Ceded Territory lakes since 1995.

Muskellunge Abundance

Adult muskellunge population and density estimates were completed in 14 Ceded Territory waters during spring 2017 (Table 3). Population estimates completed in 2017 reflect 2016 population numbers because of the two-year mark-recapture time span used to derive estimates. Muskellunge densities in the 14 relevant lakes ranged between 0.02 and 0.50 adult fish/ acre and did not appear to be related to lake size or angler regulations (Table 3).

Bass Abundance

A single largemouth bass population estimate was completed by WDNR in Silver Lake (Barron Co.) in 2017; A smallmouth bass estimate in the same lake was rejected by the TWG and will therefore not be presented here. The largemouth bass population in Silver lake was estimated bo be 1,495 individuals (4.4/acre), with abundance very nearly divided between the 8-14" (2.2/acre) and 14-18" size classes (2.3/acre).

Table 3. Adult muskellunge population estimates completed in 2017 in the Wisconsin Ceded Territory. Regulations presented are for 2017.

County	Lake	Angler Regulation (inches)	Acres	Minimum length in PE (inches)		Adult PE	CV(%)	Total per acre
				Male	Female			
Bayfield	Middle Eau Claire	40	902	25.5	30	91	34.3	0.10
Forest	Lily	40	213	30	30	64	28.0	0.30
Forest	Roberts	40	415	23.5	30	46	20.1	0.11
Forest	Windfall	40	55	30	30	15	29.3	0.27
Iron	Turtle Flambeau Fl.	40	13,122	22	30	1,177	18.3	0.09
Oneida	Two Sisters	40	719	30	30	64	35.0	0.09
Vilas	Big Arbor Vitae	40	1,090	24	30	352	29.2	0.32
Vilas	Big Muskellunge	40	930	26	30	31	20.0	0.03
Vilas	Escanaba	40	293	30	30	51	30.9	0.17
Vilas	Kentuck	40	958	30	30	479	17.3	0.50
Vilas	Sanford	40	88	24.5	24.5	24	35.7	0.24
Vilas	Snipe	40	239	24.5	22.5	46	21.8	0.19
Vilas	Trout	45	3,816	25	30	60	35.0	0.02
Vilas	White Sand	40	734	23.5	30	149	16.6	0.20

Creel Surveys

In 2017-2018 (May through March), creel surveys were conducted for 18 waters in which walleye population estimates were made during spring 2017 (Appendix C). Creel surveyed lakes ranged in size from 83 to 3,430 acres (Otter Lake-Langlade Co. and Twin Lake Chain-Vilas Co., respectively) and were located across ten counties within the Ceded Territory.

Overall Angler Effort

From 1995 through 2017 total angler effort has been variable but no trend has been observed across all ceded territory lakes monitored [$F(1; 457) = 1.32$, $P = 0.25$]. This finding is consistent with other studies and evaluations on angling pressure in Ceded Territory lakes (Cichosz 2010, Cichosz 2009, Hansen 2008, Deroba et al. 2007, Hennessy 2005; Figure 12). Since 1995 when random lake selection began, mean total angler effort has been significantly lower in large lakes (≥500 acres; 26.3 hours/ acre) than in small lakes (<500 acres; 35.1 hours/ acre; t-test (unequal variances) $t = -3.89$, $df = 362$, $P < 0.01$). In 2017-18 the mean total angler effort per acre in large lakes (9 lakes, 31.0 hours/acre) was lower than that in small lakes (9 lakes, 40.9 hours/acre) although that difference was not statistically relevant (t-test unequal variances, $t = -1.06$, $df = 15.8$, $P = 0.30$).

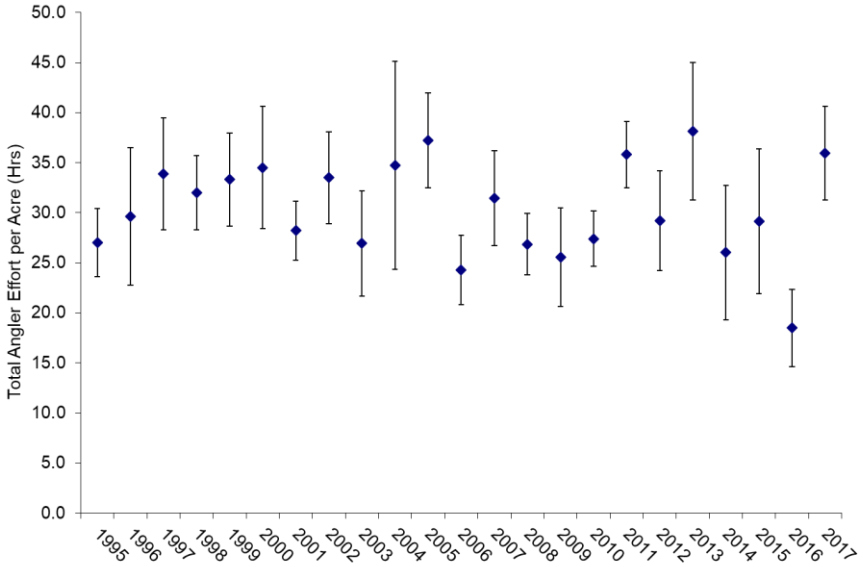

Figure 12. Average total angler effort per acre (±SE) in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2017.

Walleye Effort, Catch and Exploitation

Directed effort for walleye averaged 8.0 hours per acre across lakes during the 2017-18 angling season; Directed effort is defined as hours reported by anglers fishing for a specific species. The majority (10) of creel surveys in 2017-18 were in lakes dominated by natural reproduction, with six in those dominated by stocking; Two creel surveys were conducted in lakes with remnant walleye populations. No significant difference was found in directed fishing effort for walleye between Natural- (8.51 hours/ acre) and Stocked-model lakes (8.77 hours/ acre; t = -0.07, df = 8, P = 0.94) surveyed during the 2017-18 angling season. Similarly, no significant difference was found in directed fishing effort for walleye between large (≥500 ac., 7.68 hours/ acre) and small lakes (<500 ac., 8.41 hours/ acre; t = -0.26, df = 15, P = 0.80) surveyed during the 2017-18 angling season. Since 1995, directed angler effort (hours/acre) for walleye has shown a statistically significant downward trend [Slope = -0.24, F(1;456) = 9.8, P < 0.01) (Figure 13).

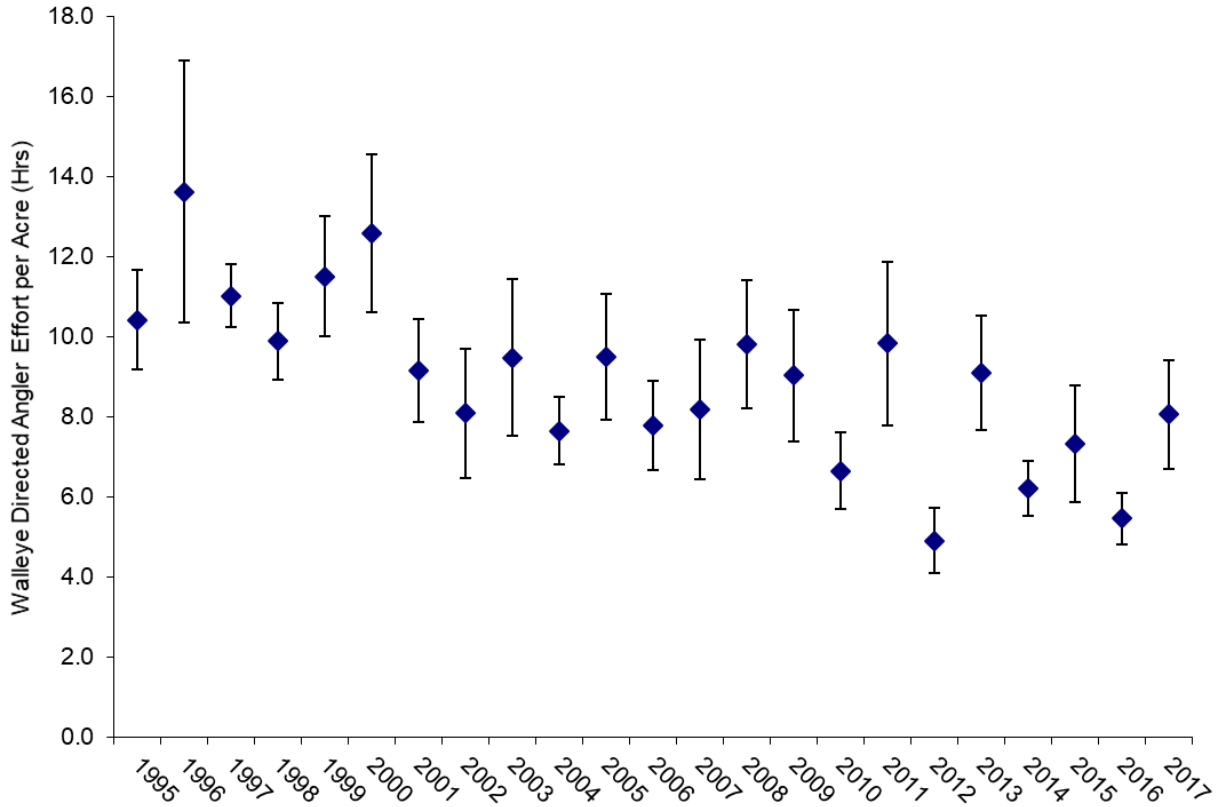

Figure 13. Directed angler effort per acre (±SE) for walleye in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2017.

In 2017-18 the mean specific catch rates (SCR) was 0.15 walleye/hour of directed effort (1 fish per 6.7 walleye angling hours). In lakes with naturally sustained or stocked populations, respectively, mean SCRs were 0.18 walleye per hour (5.6 hours directed effort/ walleye caught; n=10) and 0.11 walleye/ hour (1 fish per 9.1 hours of directed effort; n=6). Specific harvest rates averaged 0.05 walleye/hour of directed effort (20 hours directed effort/walleye harvested) and ranged between 0.00 and 0.28 walleye/hour for individual lakes surveyed (Appendix C). Anglers harvested approximately 23% of all walleye caught from creeled waters during the 2017-18 season; this is slightly below the proportion estimated across all lakes creeled between 1995 and 2016 (28.9%) (Appendix C).

Specific catch rate of walleye between 1995 and 2017 was highly variable, with no statistically relevant trend in SCR observed [Figure 14; Slope = -0.00, F(1, 455) = 0.82, P = 0.37]. Similarly, no discernible trend was noted for specific harvest rate by year since 1995 [Slope = 0.00, F(1, 454) = 0.04, P = 0.83] for walleye in the Wisconsin Ceded Territory (Figure 14).

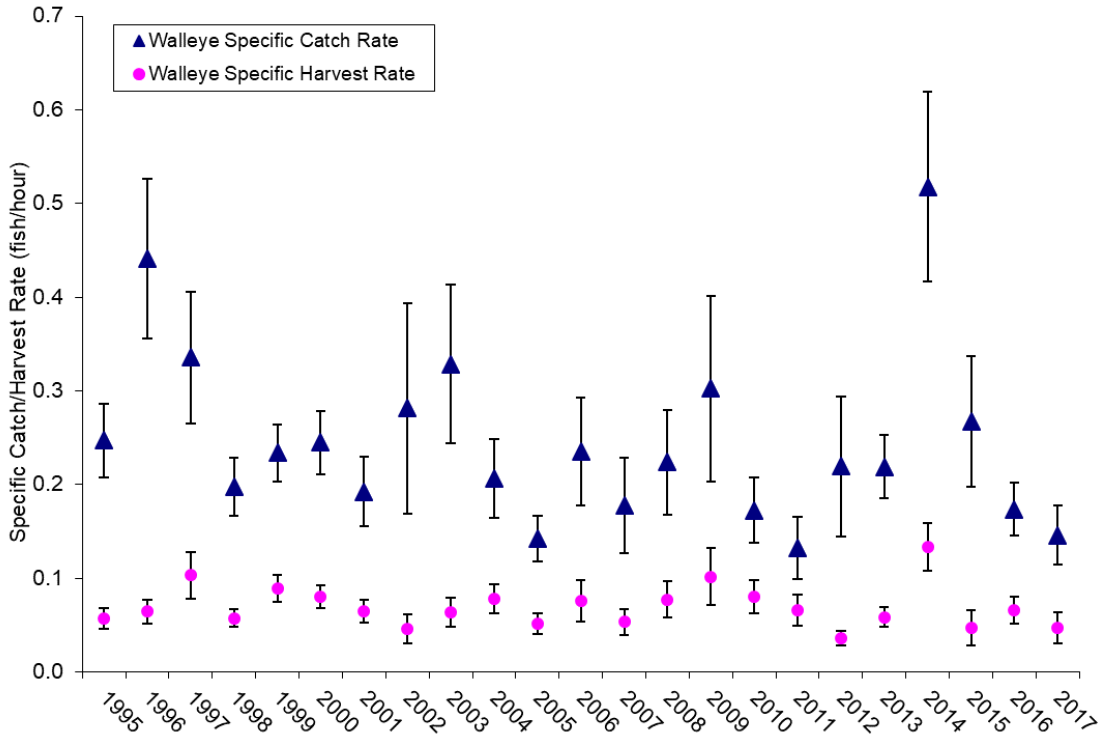

Figure 14. Specific catch and harvest rates (±SE) for walleye in surveyed lakes in the Wisconsin Ceded Territory, 1995-2017. Specific catch or harvest rate is number of walleye caught or harvested divided by time spent fishing specifically for walleye.

Walleye exploitation rates were estimated for 16 lakes during 2017-18 (Table 4; Appendix E). Estimates of angler walleye exploitation ranged from <1% to 27.0%; Angler exploitation of walleyes in various size classes was variable with exploitation of walleye 14" or longer ranging from <1% to 27% whereas that of walleyes 20" or longer ranged from 0% to 37%. Tribal exploitation of walleyes ranged from <1% to 22% across all lakes, and tribal exploitation rates exceeded those of anglers in nine of the 16 surveyed lakes. Total (angler + tribal) exploitation rates ranged from <1 - 27.0%, averaging 14.1% across lakes monitored during the 2017-18 harvest period. Based on 2017-18 survey results angler exploitation of walleye populations was estimated as greater than zero in all 16 lakes surveyed; two of the 16 lakes surveyed incurred no tribal exploitation of walleye.

Safe harvest limits are set so that over time there is less than a 1-in-40 chance that exploitation will exceed 35% in any given year on any single lake. In 2017-18 total walleye exploitation was below 35% in all 16 lakes evaluated(Table 4).

Table 4. Adult walleye exploitation rates by lake and harvest type for 2017, with comparison to 1995-2016 mean exploitation rates.

County	Lake	Acres	Angler exploitation	Angler expl. ≥14"	Angler expl. ≥20"	Tribal expl.[1]	Total adult exploitation
Oneida	Two Sisters	719	0.025	0.027	0.043	0.222	0.247
Vilas	Big Arbor Vitae	1090	0.118	0.112	0.045	0.098	0.216
Forest	Butternut	1293	0.078	0.109	0.123	0.086	0.164
Oneida	Carrol	352	0.052	0.055	0.061	0.102	0.154
Forest	Lily	213	0.042	0.063	0.000	0.079	0.121
Vilas	Little Arbor Vitae	534	0.224	0.259	0.273	0.024	0.248
Oneida	Madeline	159	0.057	0.063	0.286	0.000	0.057
Langlade	Otter	83	0.270	0.270	0.370	0.000	0.270
Forest	Roberts	415	0.025	0.025	0.000	0.112	0.137
Vilas	Twin Lake Chain	3430	0.056	0.110	0.000	0.044	0.099
Iron	Pine	312	0.121	0.082	0.000	0.018	0.138
Sawyer	Nelson	2503	0.005	0.006	0.000	0.025	0.030
Douglas	L Minnesuing	432	0.042	0.043	0.000	0.045	0.087
Sawyer	L Chetac	1920	0.035	0.069	0.000	0.042	0.077
Washburn	Bass	188	0.033	0.043	--	0.038	0.071
Polk	Balsam	2054	--	--	--	0.034	N/A
Bayfield	Upper Eau Claire	996	0.014	0.058	0.053	0.127	0.141
Oneida	Two Sisters	719	0.025	0.027	0.043	0.222	0.247
Vilas	Big Arbor Vitae	1090	0.118	0.112	0.045	0.098	0.216
2017 mean			**0.075**	**0.087**	**0.084**	**0.064**	**0.141**
1995-2016 mean			**0.086**	**0.101**	**0.115**	**0.046**	**0.131**

1 Tribal harvest data used to calculate tribal exploitation provided by the Great Lakes Indian Fish and Wildlife Commission (Ngu 1995 and 1996, Krueger 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, Krueger and Brost 2010, White 2012).

Muskellunge Effort and Catch

Of the 18 lakes surveyed in 2017-18, 11 are classified as musky waters. Creel clerks recorded at least one musky caught from ten of the 11 classified musky lakes surveyed, and from one unclassified water (Nelson L., Sawyer Co.); Appendix C. For the purpose of analyses and summarization of catch and effort, lakes not classified as musky waters and those without directed fishing effort were excluded even if limited numbers of musky had been reported in creel surveys.

In general, the "action classification" assigned to lakes (WDNR 1996) is a better predictor of musky catch and effort than recruitment source or lake size to describe variability in catch and effort (Simonson and Hewett 1999). Directed effort fishing for musky in creeled waters during 2017 (4.99 hrs/acre) was significantly less than that in the previous 10 year period (7.40 hrs/acre; Two-sample T-Test, $p<0.05$) although a full model accounting for both musky class and time-period shows that musky class is more important than time in defining directed angling effort expended. No significant differences were noted between time periods for angler catch or catch rate (Table 5). Due to typically small sample sizes in current year/class combinations, statistical comparisons between time periods are made for total values only (not within or across individual musky classes).

Table 5. Comparison of muskellunge catch and effort rates in 2017 and average values from 2007-2016, by musky lake classification.

Class	Class Description	Lakes sampled	Angler catch/ acre	Specific catch rate (fish/ hour)	Directed effort (hours/ acre)
2017					
A1	Trophy waters	2	0.06	0.01	3.65
A2	Action waters	6	0.32	0.04	5.94
B	Intermediate action/ size	3	0.08	0.02	3.99
C	Low importance	0	---	---	---
Total		11	0.21	0.03	4.99*
2007-2016 Averages (Prior 10 years)					
A1	Trophy waters	48	0.16	0.02	4.49
A2	Action waters	67	0.53	0.04	10.96
B	Intermediate action/ size	19	0.19	0.03	4.41
C	Low importance	10	0.02	0.01	0.65
Total		144	0.33	0.03	7.40

* Difference between 2017 and prior 10 year average is statistically significant ($p<0.05$).

Trends in directed effort and catch rates of muskellunge were evaluated since 1995; Trend evaluations were not done independently for each muskellunge 'action class' since limited or no data was available for some year/action class categories. There has been no observed trend in muskellunge catch rates [GLM; F(1, 346) = 0.90, P = 0.34] in the Ceded Territory since 1995 although directed effort has shown a declining trend [F(1, 348) = 4.30, Slope -0.13, P = 0.03] (Figure 15).

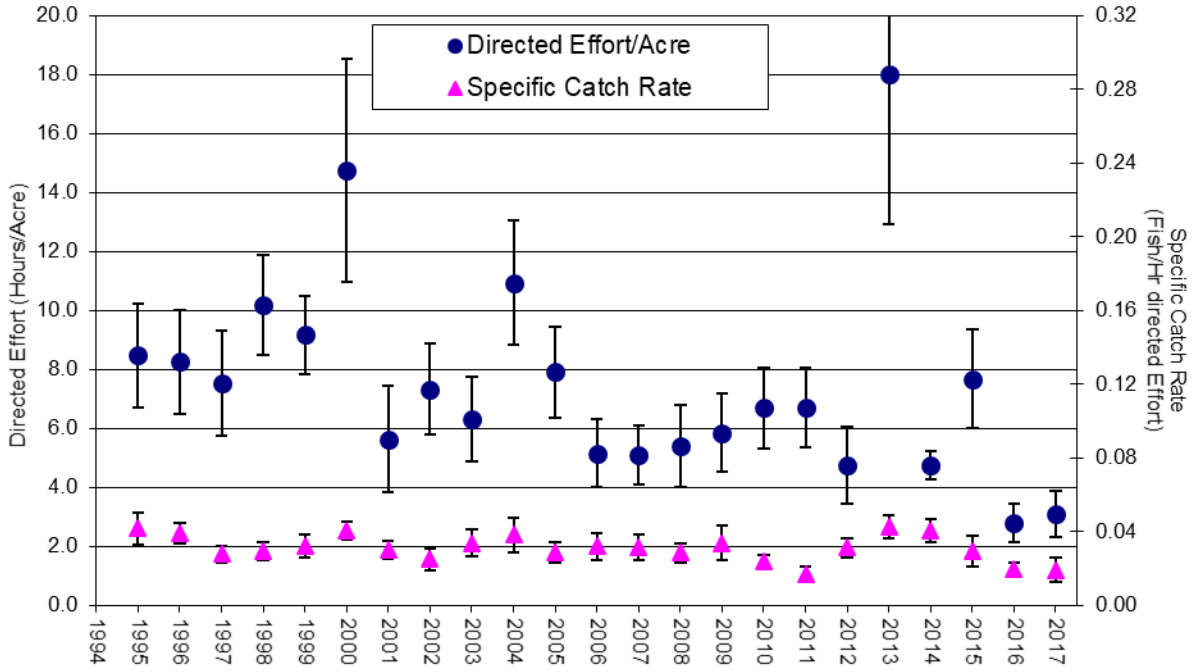

Figure 15. Directed angler effort per lake surface acre and specific catch rate (±SE) for muskellunge in surveyed lakes in the Wisconsin Ceded Territory, 1995-2017.

Northern Pike Effort and Catch

Directed effort and catches of northern pike were recorded in each of 18 lakes surveyed in 2017-18 (Appendix C). Of the 18 lakes with northern pike effort and catch, nine were smaller than 500 acres and nine were 500 acres or larger (Table 6). Directed angling effort and angler harvest/acre were both significantly greater in small lakes relative to large lakes evaluated during the 2017-18 angling season (Table 6). In large lakes, mean catch/acre and mean specific catch and harvest rates during 2017-18 were significantly less than the corresponding prior 10-year average (2007 -2016) for northern pike; for small lakes, no significant differences between current and prior 10-year averages were noted for any creel statistic evaluated (Table 6).

Estimates of angler effort directed toward northern pike have been highly variable across years (Figure 16), and since 1995 there has not been a statistically detectable trend in directed angler effort for northern pike [F(1, 441) = 1.34, P = 0.25]. Similarly, specific catch rates of northern pike show no significant trend since 1995 [F(1, 430) = 0.44, P = 0.51].

Table 6. Mean estimates calculated from 2017 and 2007-2016 northern pike creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2017							
	< 500 acres	9	2.88	0.60*	0.14	0.04	9.67*
	> 500 acres	9	0.86	0.16*	0.10	0.02	2.99*
	All lakes	18	1.87	0.38	0.18	0.03	6.33
2007-2016							
	< 500 acres	95	2.28	0.33	0.25	0.05	4.43
	> 500 acres	90	1.80**	0.26	0.21**	0.06**	3.41
	All lakes	185	2.05	0.30	0.23**	0.05**	3.93

* Small lake values differ significantly from corresponding large lake values observed during the 2017-18 angling season (T-test, p>0.05).
** 10 yr. averages differ significantly from corresponding 2017-18 annual values (T-test, p<0.05).

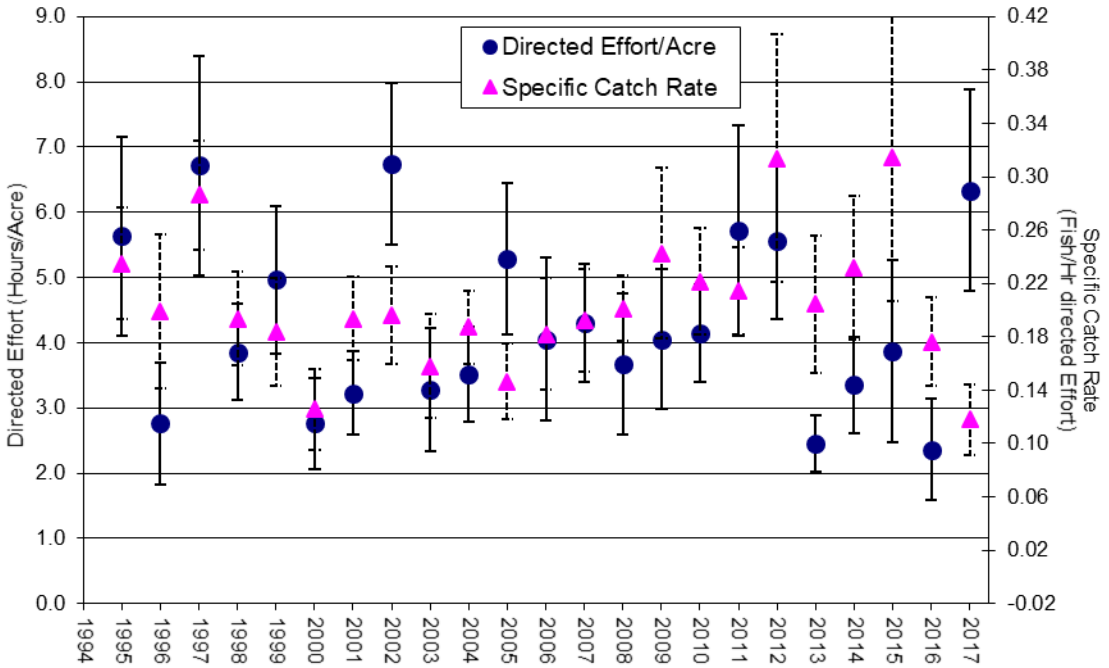

Figure 16. Directed angler effort per lake surface acre and specific catch rate (±SE) for northern pike in surveyed lakes in the Wisconsin Ceded Territory, 1995-2017.

Largemouth Bass Effort and Catch

Directed angler effort toward, and/or catches of largemouth bass were reported in 17 of the 18 lakes surveyed in 2017-18 (Pine Lake, Iron Co. had no directed effort or catch; Appendix C). Of surveyed lakes with largemouth bass catch, eight were smaller than 500 acres and nine were 500 acres or larger (Table 7). In 2017-18 there were no significant differences between large and small lakes with regard to directed angling effort, angler catch or harvest numbers or specific catch or harvest rates (T-tests, P >0.05) related to largemouth bass. Similarly, no statistical differences were noted in largemouth bass creel statistics evaluated between large and small lakes in the prior 10-year (2007-2016) averages (T-tests, P >0.05). When all lake sizes were combined, no statistical differences were noted between 2017 creel statistics and corresponding 10-year averages (T-tests, P >0.05; Table 7).

Since 1995 there has been a statistically relevant increase in specific catch rates of largemouth bass [Slope = 0.015, $F(1, 421) = 22.82$, $P < 0.01$], and in directed effort expended fishing for them throughout the Wisconsin ceded territory [Slope = 0.092, $F(1, 432) = 5.20$, $P = 0.02$], (Figure 17).

Table 7. Mean estimates calculated from 2017 and 2007-2016 largemouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2017*							
Small	< 500 acres	9	11.24	0.85	0.66	0.05	9.20
Large	> 500 acres	9	5.63	0.46	0.61	0.04	5.52
	All lakes	18	8.27	0.64	0.63	0.05	7.36
2007-2016**							
Small	< 500 acres	95	5.08	0.28	0.42	0.03	5.07
Large	> 500 acres	90	4.74	0.37	0.53	0.04	4.74
	All lakes	185	5.52	0.32	0.47	0.03	4.91

* No significant differences exist between large and small lakes for any parameter for the 2017-18 angling season (T-test, $p>0.05$).

** No significant differences exist between 10 yr. averages and corresponding 2017-18 annual values for large or small lakes, or all lakes combined (T-test, $p \geq 0.05$).

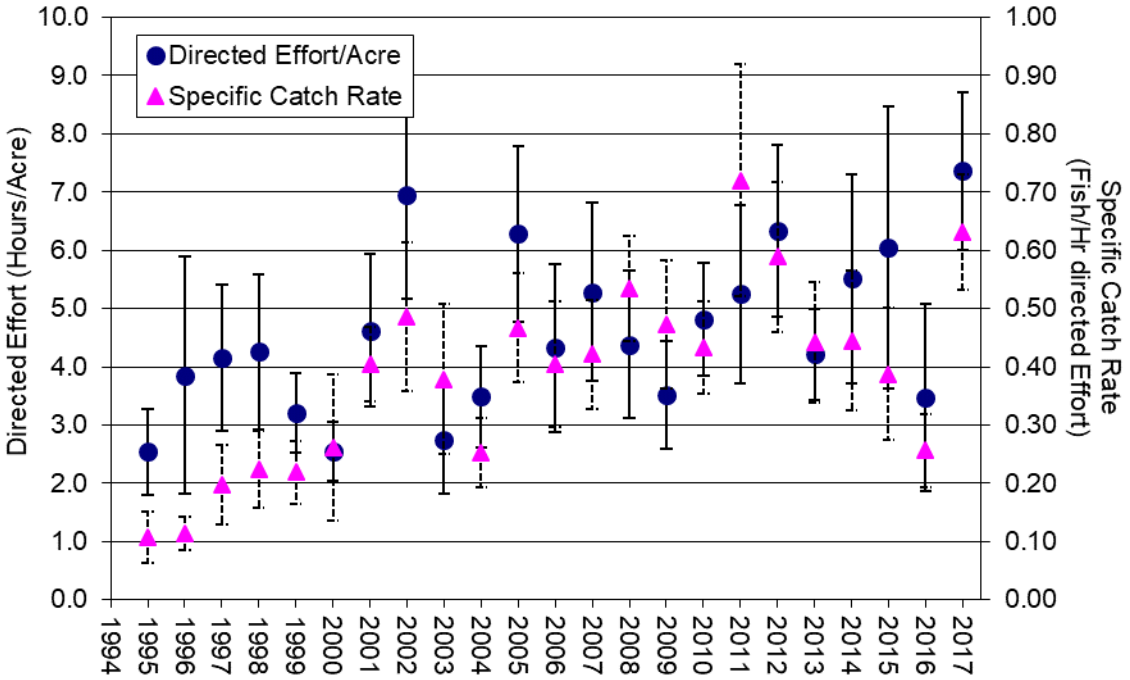

Figure 17. Directed angler effort per lake surface acre and specific catch rate (±SE) for largemouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2017.

Smallmouth Bass Effort and Catch

Each of the 18 lakes surveyed in the 2017-18 angling season had some level of angler effort directed toward smallmouth bass, and catches of smallmouth bass were reported in all lakes surveyed (Appendix C). Eight surveyed lakes were classified as 'small' (<500 ac.), and nine as 'large' (≥500 ac. Table 8). There were no significant differences in smallmouth bass directed angler effort, catch/acre, specific catch rate, harvest/acre, or specific harvest rate (T-test, P>0.05) in large and small lakes in 2017-18 (Table 8). Similarly, there were no significant differences between creel statistics measured in 2017-18 and the corresponding prior 10-year average values. In the previous 10 years (2007-2016), angler harvest per acre of smallmouth bass was statistically greater in large lakes than in small lakes (Table 8). When all lake sizes were combined, no statistical differences were noted between 2017 creel statistics and corresponding 10-year averages (T-tests, P >0.05 (Table 8).

Both directed effort and specific catch rates of smallmouth bass anglers in the Ceded Territory have been variable over time, although the 2017-18 average of both variables fell within the observed range of values in other years since 1995 (Figure 18). Since 1995 when a randomized lake selection

process was instituted there have been no statistically detectable trends in directed angler effort/acre [F(1, 429) = 0.70, P = 0.40], although specific catch rates have increased slightly over time [F(1, 418) = 4.31, P = 0.04] (Figure 18).

Table 8. Mean estimates calculated from 2017 and 2007-2016 smallmouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2017*							
Small	< 500 acres	9	2.46	0.07	0.27	0.01	5.02
Large	> 500 acres	9	3.68	0.16	0.45	0.02	3.71
	All lakes	18	3.07	0.12	0.36	0.01	4.37
2007-2016***							
Small	< 500 acres	95	1.41	0.04**	0.35	0.01	2.56
Large	> 500 acres	90	1.90	0.07**	0.38	0.02	3.25
	All lakes	185	1.65	0.05	0.36	0.01	2.90

* No significant differences exist between large and small lakes for any parameter for the 2017-18 angling season (T-test, p>0.05).
** Significant differences exist between large and small lakes for 10-year average values (T-test, p≤0.05).
*** No significant differences exist between 10 yr. averages and corresponding 2017-18 annual values (T-test, p>0.05).

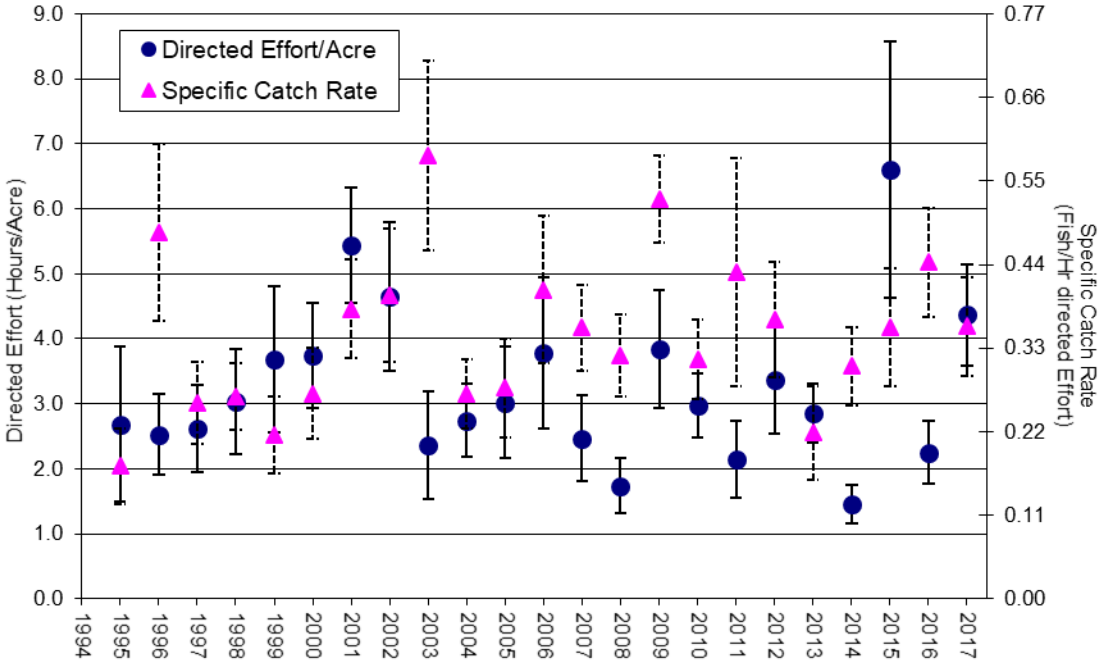

Figure 18. Directed angler effort per lake surface acre and specific catch rate (±SE) for smallmouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2017.

Safe Harvest

Safe harvest calculated for the 2017 harvest season was 80,285 walleye and 3,958 musky across the entire Wisconsin Ceded Territory (Table 9). Safe harvest of both walleye and musky has been shown to be highly correlated to the surface acreage of water found in each county (Linear regression, $r^2>0.9$; Cichosz 2009). For both walleye and musky, the greatest total safe harvest numbers for individual counties were observed in Vilas (18,103 walleye, 1,118 musky), Oneida (15,776 walleye, 802 musky), Sawyer (8,867 walleye, 414 musky) and Iron (7,707 walleye, 293 musky) counties. When totaled, safe harvest from these four counties accounted for 63 percent of overall walleye and 66 percent of overall musky safe harvest for the Wisconsin Ceded Territory during 2017. Safe harvest numbers for individual lakes are listed in Appendix G.

Table 9. Walleye and musky safe harvest levels and ranks by county for the 2017 harvest season.

County	Lake Acreage*	Total Calculated Safe Harvest		Ranks (1 = Greatest #)	
		Walleye	Musky	Walleye	Musky
Ashland	2,862	350	79	21	12
Barron	13,684	2,266	33	12	17
Bayfield	12,906	2,724	120	8	7
Burnett	11,184	1,285	98	13	10
Chippewa	14,466	2,908	105	7	8
Clark	320	5	4	26	24
Douglas	6,211	1,013	39	15	16
Dunn	1,752	400		20	
Eau Claire	2,571	553	27	17	19
Florence	2,198	272		24	
Forest	11,278	2,316	45	11	15
Iron	24,651	7,707	293	4	4
Langlade	4,800	431	32	19	18
Lincoln	16,379	4,003	162	5	6
Marathon	9,653	2,664	46	9	14
Marinette	3,361	299	16	23	23
Oconto	3,125	346	19	22	21
Oneida	59,990	15,776	802	2	2
Polk	11,379	873	86	16	11
Portage	74				
Price	9,556	2,391	199	10	5
Rusk	5,633	1,039	105	14	8
Sawyer	48,044	8,867	414	3	3
St. Croix	1,100	500	17	18	22
Taylor	4,132	143	20	25	20
Vilas	71,263	18,103	1,118	1	1
Washburn	14,594	3,051	79	6	12
Grand Total	**367,166**	**80,285**	**3,958**	**---**	**---**

* Sum of acreage for lakes with defined safe harvest of one or both species; does not include total county-wide lake acreage.

Walleye Young-of-Year Surveys

Young of the year (YOY) surveys provide an index of the abundance and survival of the current year class of walleyes from hatching or stocking to their first fall. These surveys provide fisheries managers with potential insight into future changes in adult populations. Early indication of these potential changes allows fisheries managers to develop management strategies to accommodate expected changes in adult populations. Although YOY relative abundance gives some indication of possible future adult abundance it does not necessarily correspond directly, as survival to adulthood varies (Hansen et al. 1998).

During 2017 WDNR completed 160 fall surveys on 152 different lakes in the Wisconsin Ceded Territory (Appendix EAppendix E. YOY Walleye Survey Summaries.). Of the lakes sampled, 72 had walleye populations classified as sustained by naturally reproduction (recruitment codes NR, C-NR, or C-), 66 as sustained by stocking (ST or C-ST), and 13 as remnant or newly established populations (REM, O-ST, NR-2; Appendix B). One lake surveyed was classified as having no known walleye population (NONE/0). Water temperatures during 2017 YOY walleye surveys ranged from 52 - 75° F; mean and median water temperatures during YOY surveys were 64 and 65° F, respectively. Young-of-year walleye lengths ranged from 3.3 to 8.8 inches across all lakes and dates surveyed in 2017 (Appendix E).

Differences in mean YOY walleye density between natural and stocked recruitment categories was significant during 2017 (t-test-unequal variance, $t = 4.25$, $df = 90$, $P < 0.01$). Consistent with all previous years since 1990, lakes sustained primarily by natural reproduction had higher mean walleye YOY density (mean = 13.3/mile of shoreline shocked, range = 0.0–111.0) than lakes sustained by stocking (mean = 1.5/mile, range = 0.0–41.3) during 2017 (Figure 19). The mean YOY walleye abundance observed in natural recruitment lakes during 2017 (19.3/mile) was statistically dissimilar (t-test unequal variance, $t = -5.1$, $df = 110$, $P<0.01$) to the average across the previous 27 years studied (28.1/mile from 1990-2016). The mean YOY walleye abundance observed in stocked lakes during 2017 (1.5/mile) was statistically less that observed over the previous 26 years studied (4.7/mile from 1990-2016; t-test unequal variance, $t = -3.9$, $df = 125$, $P<0.01$; Figure 19).

It appears that within the Wisconsin Ceded Territory there may be region-wide annual effects on

walleye recruitment since mean recruitment varies dramatically from year to year when data from all lakes are combined (Figure 19); In the absence of an annual regional effect one might expect average annual recruitment values (as YOY/mile) for the entire region to be similar across years. Lack of recruitment in a given lake for one or more years is natural and not necessarily alarming. Sporadic recruitment is common for walleye populations both within and among individual lakes. It is common to have almost complete lack of recruitment in 25% or more of lakes with natural reproduction, and year class failures are even more common in lakes with populations maintained by stocking. Generally, successful recruitment occurs in a given lake every 3-4 years which may reduce competition between year classes of walleye (Li et al. 1996).

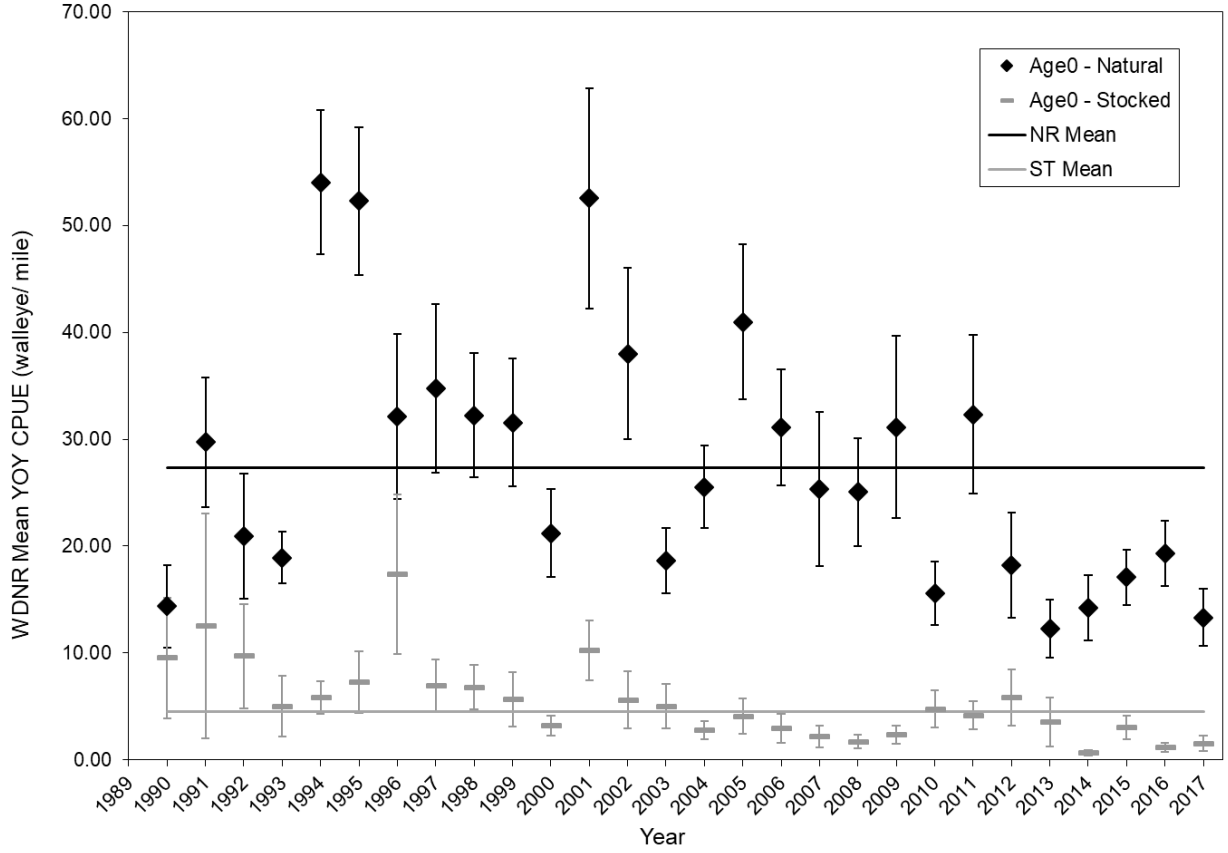

Figure 19. Comparison of mean YOY walleye density (± SE) observed in fall electrofishing surveys since 1990 in lakes dominated by natural recruitment or stocking.

A general linear model used to assess the impact of year and/or recruitment model on YOY walleye density was significant ($p<0.001$; Table 10). The significance of the model was driven by differences in YOY density between recruitment models (natural or stocked; $p<0.001$), years ($p<0.001$), and the interaction of year*recruitment model ($p=0.001$). Based on the significance of the year*recruitment model interaction term, regressions were done to evaluate trends independently for natural and stocked model lakes. YOY walleye densities have declined significantly over time in both natural (slope=-0.84, $p<0.001$) and stocked (slope=-0.31, $p<0.001$) model lakes since 1990 (Figure 19).

Table 10. GLM results comparing YOY walleye density across years and primary walleye recruitment source.

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	55	579226	10531	9.94	<.0001
Error	2,625	2780299	1059		
		Type III SS	**Mean Square**	**F Value**	**Pr > F**
Year	27	121009	4481	4.23	<.0001
Recruitment Model[a]	1	257394	257394	243.02	<.0001
Year x Recruitment Model	27	71145	2635	2.49	<.0001

a –Recruitment Models compared are ‘natural’ and ‘stocked’.

The percentages of natural-model lakes with greater than 25 YOY walleye per mile and greater than 100 YOY walleye per mile are also used to indicate strong annual year classes in the Wisconsin Ceded Territory. These values are less affected by large values for individual lakes than the mean number of YOY walleye caught per mile. In 2017, 12/80 natural model lakes (15%) had YOY indices > 25 per mile, and 3 NR lakes (4%) had YOY walleye indices > 100 per mile (Appendix E). Overall, the proportion of lakes with YOY catch rates greater than 25 or 100 fish per mile in 2017 was less than the mean proportion of lakes observed with the same catch rates between 1990-2016 (mean percentage > 25 YOY/mi = 33%; 100 >100/mi = 7%). These finding suggest a below average naturally produced walleye year class across the ceded territory in 2017 despite localized conditions that allowed for large year classes to be found in a limited number of waters.

In lakes categorized as being sustained primarily by stocking, differences in the mean number of YOY walleye captured per mile in lakes that were stocked (5.6 YOY/ mile) with fry or small or large

fingerlings was significantly greater (t-test equal variance, t = -2.08, df = 64, P = 0.04) than those that were not stocked (1.0 YOY/ mile) in 2017 (Table 11). Such differences are commonly observed and most often statistically significant; In 2015 and 2016, a lack of statistical significance in YOY/mile between stocked and un-stocked waters was noted as unusual, and largely driven by low sample size in stocked waters and the inequality of variances between stocked and non-stocked waters in those years (Cichosz 2018).

Table 11. Young-of-the-year indices in lakes categorized as being sustained primarily by stocking (ST or C-ST), separated by whether or not the lake was stocked in 2017.

	Stocked in 2017	Not Stocked in 2017
No. Lakes	7	59
Mean YOY walleye/ mile	5.64	1.04
Q1/Median/Q3	1.0 / 4.8 / 8.5	0.0 / 0.0 / 0.3
Lakes with 0 YOY/ mile	0 (0%)	42 (71%)
Lakes with ≤5 YOY/ mile	4 (57%)	57 (97%)
Lakes with ≤10 YOY/ mile	6 (86%)	58 (98%)

Fall surveys were conducted on four lakes previously stocked with oxytetracycline (OTC) marked walleyes in 2017 (Table 12). Unlike most years, the percent of marked fish showed no clear relationship with recruitment code during 2017, although all lakes sampled are known to have a combination of natural and hatchery fish contributing to the fishery (Codes C-ST and C-NR) and sample sizes were generally low. Results of OTC sampling are not considered for recruitment code designation unless a minimum of 30 individual fish are sampled from the water body in question, and are not the sole factor used to define recruitment codes.

Table 12. Lakes stocked with oxytetracycline (OTC) marked fish sampled in 2017, number of sampled fish where OTC marks were noted on the otolith, and percent contribution of stocked fish to the total sample.

County	Lake	Recruit Code*	WBIC	With OTC	Without OTC	Total	% Contrib.
Oneida	George L	C-NR	1569600	7	0	7	0
Sawyer	L Chippewa	C-NR	2399700	2	28	30	93
Sawyer	Lac Courte Oreilles	C-NR	2390800	3	1	4	25
Sawyer	Lost Land L	C-ST	2418600	9	0	9	0

* Recruitment code C-ST is in the stocked model, C-NR is in the natural model (Appendix B).

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APPENDICES

Appendix A. WDNR Lake Sampling Rotation 2017-2022.

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	LAKES	ROTATION	WSI #/acre	Most recent PE
2017	Spooner	2949200	IRON	PINE	312	1	TREND		2014
2017	Spooner	2620600	POLK	BALSAM	2,054	1	TREND-BW	10	2014
2017	Spooner	2451900	Washburn	Bass-Patterson	188	1	GLIFWC PE/ DNR Creel		2015
2017	Spooner	2704200	Sawyer	Nelson	2716	1	WSI	10	2014
2017	Spooner	2866200	Douglas	Minnesuing	450	1	WSI	5	2000
2017	Spooner	2113300	Sawyer	Chetac	2400	1	WSI-BW	10	2015
2017	Spooner	2742700	Bayfield	Upper Eau Claire	1024	1	WSI-BW	10	2011
2017	Spooner	2756200	Bayfield	Bladder	84	1	No creel		1990
2017	Spooner	1835700	Sawyer	Blueberry	292	1	Spatial	15	
2017	Woodruff	1588200	ONEIDA	TWO SISTERS	719	1	TREND		2014
2017	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090	1	TREND- BWREF	0	2014
2017	Woodruff	692400	Forest	Butternut		1	GLIFWC PE/ DNR Creel		2015
2017	Woodruff	1623801	Vilas	Twin L Chain	3,430	2	Spatial		2013
2017	Woodruff	387200	Langlade	Otter	90	1	Spatial		2009
2017	Woodruff	1544800	Oneida	Carrol	330	1	Spatial		2005
2017	Woodruff	1545300	VILAS	Little Arbor Vitae	480	1	Spatial		2013
2017	Woodruff	378400	FOREST	Roberts	435	1	WSI	15	2010
TOTAL					***16,094***	***18***			

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	LAKES	ROTATION	WSI #/acre	Most recent PE
2018	Spooner	2897100	BAYFIELD	DIAMOND	341	1	TREND-WSI	5	2015
2018	Spooner	2391200	SAWYER	GRINDSTONE	3,111	1	TREND		2015
2018	Spooner	2897300	Bayfield	Crystal	117	1	WSI	5	2012
2018	Spooner	2353600	Rusk	Sand	262	1	WSI-BW	10	2002
2018	Spooner	2395100	Sawyer	Osprey	214	1	WSI-BW	10	1993
2018	Spooner	2429600	Ashland	Upper Clam	168	1	WSI	15	
2018	Spooner		Price	Pike Chain	1,905	4	Spatial-BWREF	0	2005
2018	Spooner	2741600	Bayfield	Lower Eau Claire/Cranberry	806	2	Spatial		2011
2018	Woodruff	1018500	VILAS	SNIPE	239	1	TREND		2015
2018	Woodruff	1592400	VILAS	PLUM	1,033	1	TREND		2015
2018	Woodruff	1523600	Oneida	Bearskin	400	1	GLIFWC PE/ DNR Creel		2015
2018	Woodruff	1536300	Oneida	Squirrel	1,310	1	GLIFWC PE/ DNR Creel		2015
2018	Woodruff	396500	Forest	L Lucerne	1,026	1	WSI	10	2015
2018	Woodruff	478200	Forest	Range Line	93	1	WSI	15	2014
2018	Woodruff	974200	Oneida	Buffalo	105	1	Spatial		1988
2018	Woodruff	2954800	Vilas	Oxbow	523	1	Spatial		2014
2018	Woodruff	1517200	Oneida	Manson	236	1	Spatial		2006
2018	Woodruff	1589100	Oneida	Hasbrook	307	1	Spatial		2010
TOTAL					***12,196***	***22***			

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	LAKES	ROTATION	WSI #/acre	Most recent PE
2019	Spooner	2678100	BURNETT	LIPSETT	393	1	TREND		2013
2019	Spooner	2742100	BAYFIELD	MIDDLE EAU CLAIRE/BONY	902	1	TREND-BWREF	0	2013
2019	Spooner	2882300	Bayfield	Siskiwit	330	1	GLIFWC PE/ DNR Creel		2015
2019	Spooner	2900200	Bayfield	L Owen	1,323	1	WSI-BW	10	2013
2019	Spooner	2306300	Iron	Spider	352	1	Spatial-BWREF No creel	0	2013
2019	Spooner	2283300	Price	Butternut	983	1	Spatial		2014
2019	Spooner	2113000	Washburn	Birch	368	1	Spatial		
2019	Spooner	2152800	Chippewa	L Wissota	6,300	1	Spatial-BWREF	0	2015
2019	Spooner	2100800	Barron	Granite	155	1	Spatial		2005
2019	Woodruff	394400	FOREST	L METONGA	1,991	1	TREND		2013
2019	Woodruff	2331600	VILAS	TROUT	3,816	1	TREND		2013
2019	Woodruff	2953800	VILAS	Annabelle	195	1	GLIFWC PE/ DNR Creel		2015
2019	Woodruff	1596600	VILAS	Muskellunge	270	1	WSI- no creel	5	#N/A
2019	Woodruff	1445600	Langlade	Summit	279	1	WSI	10	2002
2019	Woodruff	555700	Forest	Silver	317	1	WSI	15	1998
2019	Woodruff	1523000	Oneida	East Horsehead	191	1	WSI	20	2001
2019	Woodruff	2958500	Vilas	Harris	534	1	Spatial		2013
2019	Woodruff	2332300	Vilas	Little John	151	1	Spatial		2007
TOTAL					***18,850***	***18***			

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	LAKES	ROTATION	WSI #/acre	Most recent PE
2020	Spooner	2949200	IRON	PINE	312	1	TREND		2014
2020	Spooner	2620600	POLK	BALSAM	2,054	1	TREND-BW	10	2014
2023	Spooner	2732600	Bayfield	Namekagon/Jackson	3,369	2	Spatial		2011
2020	Spooner	2079000	BARRON	BIG MOON LAKE	187	1	Spatial	10	2008
2020	Spooner	2079700	BARRON	TURTLE LAKE, LOWER	286	1	Spatial (WSI-BW)	10	2011
2020	Spooner	2079800	BARRON	TURTLE LAKE, UPPER	427	1	Spatial (WSI-BW)	10	2011
2020	Spooner	2275100	Sawyer	Connors	410	1	Spatial-BWREF	0	2013
2020	Spooner	2396800	Sawyer	Durphee	198	1	WSI-BW	10	2012
2020	Spooner	2143900	Clark	Mead	310	1	WSI- no creel	15	2012
2020	Spooner	2303500	Iron	Long	396	1	WSI- no creel	15	2015
2020	Woodruff	1588200	ONEIDA	TWO SISTERS	719	1	TREND		2014
2020	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090	1	TREND-BWREF	0	2014
2020	Woodruff	716800	Forest	Kentuck	1,001	1	GLIFWC PE/ DNR Creel		2015
2020	Woodruff	2271600	ONEIDA	Squaw	785	1	GLIFWC PE/ DNR Creel		2015
2020	Woodruff		Oneida	Tomahawk/Minocqua Chain	5805	5	WSI-BW	10	2015
2020	Woodruff	2334700	Vilas	BIG LAKE T42N R06E S04	827	1	Spatial		2013
2020	Woodruff	1605800	Oneida	Sevenmile	518	1	Spatial		2008
2020	Woodruff	1406300	Marathon	Pike	204	1	Spatial no creel	5	2002
TOTAL					***18,898***	***23***			

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	LAKES	ROTATION	WSI #/acre	Most recent PE
2021	Spooner	2897100	BAYFIELD	DIAMOND	341	1	TREND-WSI	5	2015
2021	Spooner	2391200	SAWYER	GRINDSTONE	3,111	1	TREND		2015
2021	Spooner	2451900	Washburn	Bass-Patterson	188	1	GLIFWC PE/ DNR Creel		2015
2021	Spooner	1875900	Rusk	Pulaski	126	1	WSI-BW	10	2013
2021	Spooner	2105100	Barron	Bear	1,358	1	WSI	20	2014
2021	Spooner	2399700	Sawyer	L Chippewa	15,300	1	WSI-ns	5	2011
2021	Spooner	2916900	Ashland	Mineral	227	1	Spatial		2006
2021	Spooner	2694000	Douglas	Whitefish (Bardon)	848	1	Spatial		2014
2021	Woodruff	1018500	VILAS	SNIPE	239	1	TREND		2015
2021	Woodruff	1592400	VILAS	PLUM	1,033	1	TREND		2015
2021	Woodruff	692400	Forest	Butternut	1,292	1	GLIFWC PE/ DNR Creel		2015
2022	Woodruff	1595300	Oneida	Rainbow Flowage	3,153	1	Spatial		2012
2021	Woodruff	995000	Oneida	Julia	240	1	Spatial	10	2012
2021	Woodruff	1591100	Vilas	Big St. Germain	1,617	1	Spatial		2011
2021	Woodruff	494200	Langlade	Rose	115	1	Spatial- OW creel only	15	2015
2021	Woodruff	1515400	Lincoln	L Mohawksin	1,910	1	Spatial		2009
2021	Woodruff	1012100	Lincoln	PINE LAKE T35N R08E S24	132	1	Spatial		2001
TOTAL					***31,230***	***17***			

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	LAKES	ROTATION	WSI #/acre	Most recent PE
2022	Spooner	2678100	BURNETT	LIPSETT	393	1	TREND		2013
2022	Spooner	2742100	BAYFIELD	MIDDLE EAU CLAIRE/BONY	902	1	TREND-BWREF	0	2013
2022	Spooner	2692900	WASHBURN	MINONG FLOWAGE (L NANCY)	1587.36	1	Spatial		2010
2022	Spooner	2902700	Bayfield	Pike Lake Chain	714	4	BW-REF	0	2010
2022	Spooner	2157000	CHIPPEWA	OTTER LAKE (BROWN)	602	1	WSI	10	2014
2022	Spooner	1884100	Washburn	Stone	523	1	WSI	15	2010
2022	Spooner	2301800	Iron	Echo	205	1	Spatial-WSI	10	
2022	Spooner	2393200	Sawyer	Sand	950	1	Spatial		2012
2022	Woodruff	394400	FOREST	L METONGA	1,991	1	TREND		2013
2022	Woodruff	2331600	VILAS	TROUT	3,816	1	TREND		2013
2022	Woodruff	1523600	Oneida	Bearskin	400	1	GLIFWC PE/ DNR Creel		2015
2022	Woodruff	1536300	Oneida	Squirrel	1,309	1	GLIFWC PE/ DNR Creel		2015
2022	Woodruff	1547700	Lincoln	Somo	404	1	WSI	5	2006
2022	Woodruff	1019500	Oneida	Squash	398	1	WSI-BW	10	2009
2022	Woodruff	198100	Langlade	Sawyer	180	1	WSI	20	2014
2021	Woodruff	1631900	Vilas	Lac Vieux Desert	4,300	1	WSI-ns	15	2012
2022	Woodruff	1516401	Lincoln	Rice R Flowage Chain	3,764	1	Spatial		2012
TOTAL					***22,438***	***20***			

Appendix B. Walleye Recruitment Code Descriptions (primary source of walleye recruitment; U.S. Department of the Interior, 1991).

Recruitment Code[1]	**Recruitment Model[2]**	**Description**
blank	None	unknown
NONE/ O	None	No walleye are present
REM	Remnant	Stocking provides the only source of recruitment but was discontinued. The stock is expected to disappear at some time in the future.
0-ST	Remnant	Stocking provides the only source of recruitment but was initiated only recently and has not yet resulted in a harvestable population of adults.
ST	Stocked	Stocking provides the only source of recruitment and is consistent enough to result in a multi-year class adult population.
C-ST	Stocked	Stocking provides the primary source of recruitment but some natural reproduction occurs and may augment the adult population.
C-	Natural	Natural reproduction and stocking provide more or less equal recruitment to the adult population.
C-NR	Natural	Natural reproduction is adequate to sustain the population even though the lake is being stocked.
NR	Natural	Natural reproduction only; consistent enough to result in multi-year class adult populations.
NR-2	Remnant	Natural reproduction only; inconsistent, results in missing year classes.

1 - Recruitment Code = Designation of the *primary* recruitment source and done by a technical working group.
2 - Recruitment Model is used for data analysis and groups various recruitment codes into one of three categories.

Appendix C. 2017-2018 Creel Survey Summaries.

Angler Effort Summary

Lake	MWBIC	Acres	Walleye recruit code	Musky recruit code	Total angler effort	Total angler effort/ acre	Directed Effort Walleye	Walleye Effort/ Acre	Directed Effort Musky	Musky Effort/ Acre	Directed Effort Pike	Pike Effort/ Acre	Directed Effort LMB	LMB Effort/ Acre	Directed Effort SMB	SMB Effort/ Acre
Upper Eau Claire	2742700	996	C-NR	C-	16,538	16.60	3,315	3.33	3,408	3.42	4,550	4.57	5,126	5.15	1,848	1.86
L Minnesuing	2866200	432	C-ST	O	12,868	29.79	1,111	2.57	0	0.00	3,968	9.19	1,688	3.91	489	1.13
Butternut	692400	1,293	C-NR	O	13,355	10.33	4,380	3.39	205	0.16	1,404	1.09	580	0.45	7,653	5.92
Lily	376900	213	NR	NR	6,593	30.95	3,744	17.58	1,297	6.09	575	2.70	529	2.48	1,937	9.09
Roberts	378400	415	C-ST	NR	15,622	37.64	3,955	9.53	1,380	3.33	5,248	12.65	4,275	10.30	3,273	7.89
Pine	2949200	312	NR	NR	4,461	14.30	1,825	5.85	1,463	4.69	65	0.21	0	0.00	811	2.60
Otter	387200	83	NR	O	4,951	59.65	1,241	14.95	29	0.35	1,111	13.39	533	6.42	660	7.95
Carrol	1544800	352	ST	C-ST	21,815	61.97	3,307	9.39	2,168	6.16	4,152	11.80	5,038	14.31	1,471	4.18
Madeline	1544700	159	REM	C-	11,133	70.02	788	4.96	306	1.92	3,920	24.65	3,535	22.23	542	3.41
Two Sisters	1588200	719	C-NR	C-	8,239	11.46	2,955	4.11	1,681	2.34	1,336	1.86	2,227	3.10	3,269	4.55
Balsam	2620600	2,054	O-ST	O	63,963	31.14	4,440	2.16	0	0.00	8,677	4.22	25,113	12.23	1,740	0.85
Blueberry	1835700	280	ST	O	10,805	38.59	1,325	4.73	33	0.12	3,328	11.89	3,267	11.67	0	0.00
L Chetac	2113300	1,920	C-NR	O	131,601	68.54	16,156	8.41	0	0.00	16,226	8.45	14,241	7.42	9,148	4.76
Nelson	2704200	2,503	C-ST	REM	67,910	27.13	9,681	3.87	33	0.01	7,825	3.13	23,399	9.35	100	0.04
Big Arbor Vitae	1545600	1,090	NR	C-	46,045	42.24	15,556	14.27	7,805	7.16	446	0.41	8,757	8.03	4,556	4.18
Little Arbor Vitae	1545300	534	C-ST	C-	30,040	56.25	12,023	22.51	6,614	12.39	1,349	2.53	1,603	3.00	5,491	10.28
Twin Lake Chain	1623801	3430	NR	C-	52,169	15.21	24,429	7.12	13,278	3.87	2,483	0.72	3,325	0.97	3,315	0.97
Bass	2451900	188	NR	NR	4,768	25.36	1,151	6.12	665	3.54	102	0.54	2,163	11.51	1,681	8.94

Walleye

County	Lake	MWBIC	Acres	WAE Recruit Code	Initial WAE Bag	Final WAE Bag	WAE Size Reg.	Adult PE	APEAc	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Bayfield	Upper Eau Claire	2742700	996	C-NR	3	3	18	765	0.77	425	0.43	131	0.13	0.13	0.04	22	21.63	0.03	0.01
Douglas	L Minnesuing	2866200	432	C-ST	3	3	1>14	156	0.36	165	0.38	54	0.13	0.07	0.02	13	14.50	0.02	0.01
Forest	Butternut	692400	1293	C-NR	3	3	20-24 Slot	1992	1.54	233	0.18	104	0.08	0.05	0.02	35	18.39	0.02	0.01
Forest	Lily	376900	213	NR	3	3	20-24 Slot	1111	5.22	847	3.98	110	0.52	0.22	0.03	20	16.75	0.14	0.02
Forest	Roberts	378400	415	C-ST	3	3	20-24 Slot	625	1.51	170	0.41	64	0.15	0.04	0.02	17	17.39	0.01	0.00
Iron	Pine	2949200	312	NR	3	3	1>14	1196	3.83	1020	3.27	544	1.74	0.47	0.28	71	11.88	0.23	0.12
Langlade	Otter	387200	83	NR	3	3	20-24 Slot	54	0.65	24	0.29	15	0.18	0.01	0.01	3	24.67	0.00	0.00
Oneida	Carrol	1544800	352	ST	3	3	20-24 Slot	551	1.57	296	0.84	197	0.56	0.07	0.05	37	17.82	0.01	0.01
Oneida	Madeline	1544700	159	REM	3	3	20-24 Slot	52	0.33	10	0.06	2	0.01	0.00	0.00	1	24.50	0.00	0.00
Oneida	Two Sisters	1588200	719	C-NR	3	3	18	978	1.36	123	0.17	38	0.05	0.03	0.01	21	22.43	0.02	0.00
Polk	Balsam	2620600	2054	O-ST	3	3	18	1032	0.50	478	0.23	24	0.01	0.09	0.00	0		0.01	0.00
Sawyer	Blueberry	1835700	280	ST	3	3	20-24 Slot	141	0.50	73	0.26	9	0.03	0.02	0.00	1	15.10	0.01	0.00
Sawyer	L Chetac	2113300	1920	C-NR	3	3	18	4715	2.46	8398	4.37	435	0.23	0.31	0.02	19	19.65	0.06	0.00
Sawyer	Nelson	2704200	2503	C-ST	3	3	18	1364	0.54	2610	1.04	95	0.04	0.18	0.01	11	19.81	0.04	0.00
Vilas	Big Arbor Vitae	1545600	1090	NR	3	3	1>14	4775	4.38	3383	3.10	1585	1.45	0.20	0.10	254	14.52	0.07	0.03
Vilas	Little Arbor Vitae	1545300	534	C-ST	3	3	1>14	2059	3.86	3367	6.31	1699	3.18	0.26	0.13	473	15.30	0.11	0.06
Vilas	Twin Lake Chain	1623801	3430	NR	3	3	20-24 Slot	12814	3.74	9017	2.63	2322	0.68	0.36	0.09	290	16.17	0.17	0.04
Washburn	Bass	2451900	188	NR	3	3	1>14	477	2.54	145	0.77	9	0.05	0.13	0.01	4	15.65	0.03	0.00

Musky

County	Lake	MWBIC	Acres	MRC	Musky Class	Musky size limit	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Bayfield	Upper Eau Claire	2742700	996	C-	A1	40	74	0.07	0	0.00	0.0166	0.0000	0	--	0.0100	0.0000
Douglas	L Minnesuing	2866200	432	O	--	40	0	0.00	--	--	--	--	--	--	--	--
Forest	Butternut	692400	1293	O	--	40	0	0.00	0	0.00	0.0000	0.0000	0	--	0.0000	0.0000
Forest	Lily	376900	213	NR	B	40	17	0.08	0	0.00	0.0133	0.0000	0	--	0.0000	0.0000
Forest	Roberts	378400	415	NR	A2	40	46	0.11	0	0.00	0.0186	0.0000	0	--	0.0000	0.0000
Iron	Pine	2949200	312	NR	A2	40	220	0.71	0	0.00	0.1080	0.0000	0	--	0.0500	0.0000
Langlade	Otter	387200	83	O	--	40	0	0.00	0	0.00	0.0000	0.0000	0	--	0.0000	0.0000
Oneida	Carrol	1544800	352	C-ST	A2	40	85	0.24	0	0.00	0.0280	0.0000	0	--	0.0100	0.0000
Oneida	Madeline	1544700	159	C-	A2	40	0	0.00	0	0.00	0.0000	0.0000	0	--	0.0000	0.0000
Oneida	Two Sisters	1588200	719	C-	B	40	21	0.03	0	0.00	0.0077	0.0000	0	--	0.0000	0.0000
Polk	Balsam	2620600	2054	O	--	40	0	0.00	--	--	--	--	--	--	--	--
Sawyer	Blueberry	1835700	280	O	--	40	0	0.00	0	0.00	0.0000	0.0000	0	--	0.0000	0.0000
Sawyer	L Chetac	2113300	1920	O	--	40	0	0.00	--	--	--	--	--	--	--	--
Sawyer	Nelson	2704200	2503	REM	--	40	16	0.01	0	0.00	0.0000	0.0000	0	--	0.0000	0.0000
Vilas	Big Arbor Vitae	1545600	1090	C-	A2	40	238	0.22	0	0.00	0.0167	0.0000	0	--	0.0100	0.0000
Vilas	Little Arbor Vitae	1545300	534	C-	A2	40	341	0.64	0	0.00	0.0393	0.0000	0	--	0.0100	0.0000
Vilas	Twin Lake Chain	1623801	3430	C-	A1	40	150	0.04	0	0.00	0.0089	0.0000	0	--	0.0000	0.0000
Washburn	Bass	2451900	188	NR	B	40	22	0.12	0	0.00	0.0293	0.0000	0	--	0.0100	0.0000

Northern Pike

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Bayfield	Upper Eau Claire	2742700	996	2,339	2.35	294	0.30	0.28	0.06	52	22.7	0.14	0.02
Douglas	L Minnesuing	2866200	432	853	1.97	217	0.50	0.13	0.04	49	21.9	0.07	0.02
Forest	Butternut	692400	1,293	339	0.26	65	0.05	0.04	0.03	23	25.6	0.03	0.01
Forest	Lily	376900	213	117	0.55	27	0.13	0.10	0.03	6	24.0	0.03	0.01
Forest	Roberts	378400	415	2,314	5.58	285	0.69	0.23	0.04	56	21.6	0.16	0.02
Iron	Pine	2949200	312	1	0.00	0	0.00	0.00	0.00	0	--	0.00	0.00
Langlade	Otter	387200	83	103	1.24	57	0.69	0.06	0.04	23	28.5	0.02	0.01
Oneida	Carrol	1544800	352	946	2.69	221	0.63	0.10	0.04	87	21.3	0.04	0.01
Oneida	Madeline	1544700	159	945	5.94	255	1.60	0.17	0.06	82	20.6	0.09	0.02
Oneida	Two Sisters	1588200	719	369	0.51	45	0.06	0.10	0.02	14	23.3	0.04	0.01
Polk	Balsam	2620600	2,054	2,360	1.15	99	0.05	0.14	0.01	6	28.6	0.04	0.00
Sawyer	Blueberry	1835700	280	2,218	7.92	325	1.16	0.44	0.08	39	23.6	0.21	0.03
Sawyer	L Chetac	2113300	1,920	3,407	1.77	1,057	0.55	0.16	0.06	42	25.4	0.03	0.01
Sawyer	Nelson	2704200	2,503	2,096	0.84	116	0.05	0.10	0.01	18	33.3	0.03	0.00
Vilas	Big Arbor Vitae	1545600	1,090	87	0.08	37	0.03	0.00	0.00	4	23.95	0.00	0.00
Vilas	Little Arbor Vitae	1545300	534	415	0.78	180	0.34	0.06	0.04	51	27.8	0.01	0.01
Vilas	Twin Lake Chain	1623801	3,430	105	0.03	12	0.00	0.01	0.00	2	26.85	0.00	0.00
Washburn	Bass	2451900	188	6	0.03	0	0.00	0.00	0.00	0	--	0.00	0.00

Smallmouth Bass

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Bayfield	Upper Eau Claire	2742700	996	690	0.69	39	0.04	0.33	0.01	3	16.63	0.05	0.00
Douglas	L Minnesuing	2866200	432	297	0.69	26	0.06	0.36	0.00	3	15.60	0.03	0.00
Forest	Butternut	692400	1,293	4,354	3.37	202	0.16	0.54	0.03	65	16.35	0.35	0.02
Forest	Lily	376900	213	1,449	6.80	21	0.10	0.64	0.01	2	13.85	0.30	0.00
Forest	Roberts	378400	415	679	1.64	9	0.02	0.17	0.00	1	18.50	0.06	0.00
Iron	Pine	2949200	312	227	0.73	0	0.00	0.23	0.00	0	--	0.06	0.00
Langlade	Otter	387200	83	553	6.66	19	0.23	0.50	0.03	6	14.63	0.18	0.01
Oneida	Carrol	1544800	352	771	2.19	5	0.01	0.23	0.00	1	15.40	0.04	0.00
Oneida	Madeline	1544700	159	95	0.60	0	0.00	0.02	0.00	0	--	0.02	0.00
Oneida	Two Sisters	1588200	719	2,914	4.05	40	0.06	0.73	0.01	7	15.43	0.39	0.01
Polk	Balsam	2620600	2,054	1,253	0.61	27	0.01	0.61	0.02	0	--	0.04	0.00
Sawyer	Blueberry	1835700	280	7	0.03	0	0.00	0.00	0.00	0	--	0.01	0.00
Sawyer	L Chetac	2113300	1,920	4,196	2.19	585	0.30	0.16	0.03	17	11.72	0.04	0.01
Sawyer	Nelson	2704200	2,503	144	0.06	0	0.00	0.13	0.00	0	--	0.00	0.00
Vilas	Big Arbor Vitae	1545600	1,090	3,623	3.32	258	0.24	0.40	0.02	33	15.78	0.09	0.01
Vilas	Little Arbor Vitae	1545300	534	9,976	18.68	345	0.65	1.06	0.02	86	15.48	0.34	0.01
Vilas	Twin Lake Chain	1623801	3,430	530	0.15	20	0.01	0.09	0.00	1	16.80	0.01	0.00
Washburn	Bass	2451900	188	526	2.80	39	0.21	0.26	0.02	10	12.80	0.12	0.01

Largemouth Bass

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Bayfield	Upper Eau Claire	2742700	996	2,955	2.97	536	0.54	0.47	0.09	40	13.13	0.21	0.04
Douglas	L Minnesuing	2866200	432	938	2.17	172	0.40	0.42	0.06	28	15.18	0.08	0.01
Forest	Butternut	692400	1,293	130	0.10	9	0.01	0.17	0.02	2	15.30	0.02	0.00
Forest	Lily	376900	213	20	0.09	0	0.00	0.01	0.00	0	--	0.00	0.00
Forest	Roberts	378400	415	3,375	8.13	68	0.16	0.68	0.01	10	15.73	0.30	0.01
Iron	Pine	2949200	312	--	--	--	--	--	--	--	--	--	--
Langlade	Otter	387200	83	230	2.77	0	0.00	0.17	0.00	0	--	0.06	0.00
Oneida	Carrol	1544800	352	7,770	22.07	144	0.41	1.22	0.01	25	14.58	0.37	0.01
Oneida	Madeline	1544700	159	3,483	21.91	129	0.81	0.79	0.01	27	15.23	0.32	0.01
Oneida	Two Sisters	1588200	719	1,460	2.03	33	0.05	0.49	0.01	3	15.67	0.22	0.00
Polk	Balsam	2620600	2,054	50,189	24.43	3,185	1.55	1.65	0.09	106	12.74	0.93	0.06
Sawyer	Blueberry	1835700	280	4,677	16.70	974	3.48	0.89	0.21	94	12.51	0.46	0.10
Sawyer	L Chetac	2113300	1,920	6,871	3.58	941	0.49	0.29	0.04	35	13.84	0.05	0.01
Sawyer	Nelson	2704200	2,503	22,490	8.99	1,727	0.69	0.90	0.06	140	14.16	0.33	0.03
Vilas	Big Arbor Vitae	1545600	1,090	6,256	5.74	800	0.73	0.54	0.06	104	15.58	0.16	0.02
Vilas	Little Arbor Vitae	1545300	534	1,175	2.20	65	0.12	0.42	0.02	16	15.88	0.05	0.00
Vilas	Twin Lake Chain	1623801	3,430	2,249	0.66	7	0.00	0.54	0.00	1	15.00	0.05	0.00
Washburn	Bass	2451900	188	3,016	16.04	284	1.51	1.10	0.12	42	12.28	0.70	0.07

Appendix D. WDNR Walleye Population Estimates Accepted For Use by the Treaty TWG in 2017.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	Adult PE	CV Adult PE	L95 C.I. Adults	Adult PE/Acre	Adult 0-12"	Adult 12-15"	Adult 15-20"	Adult 20+"
378400	Forest	Roberts	415	Slot20-24	C-ST	625	0.22	360	1.51	31	355	354	83
376900	Forest	Lily	213	Slot20-24	NR	1111	0.13	836	5.22	30	528	351	55
406900	Forest	Pine	1,670	Slot20-24	ST	1,264	0.22	720	0.76	20	450	410	159
388100	Langlade	Pickerel	1,299	18	O-ST	51	0.08	43	0.04	27	43	42	34
388500	Forest	Crane	337	18	ST	338	0.27	162	1.00	21	116	116	26
387200	Langlade	Otter	83	Slot20-24	C-NR	54	0.19	33	0.64	0	37	37	27
1017400	Lincoln	Silver	95	Slot20-24	NR-2	70	0.09	57	0.73	2	58	54	11
1427400	Marathon	Big Eau Pleine	6,830	Slot20-24	C-NR	22,438	0.05	20,260	3.29	165	5,447	3,077	658
1588200	Oneida	Two Sisters	719	18	C-NR	978	0.20	589	1.36	8	528	488	264
1544800	Oneida	Carrol	352	Slot20-24	ST	551	0.28	248	1.56	5	212	200	90
1544700	Oneida	Madeline	159	Slot20-24	REM	52	0.23	28	0.32	2	35	32	7
1545600	Vilas	Big Arbor Vitae	1,090	1>14	NR	4,775	0.20	2,885	4.38	75	1,687	1,303	149
1545300	Vilas	Little Arbor Vitae	534	1>14	C-ST	2,059	0.08	1,749	3.86	126	1,226	941	298
1623801	Vilas	Twin L Chain	3,430	Slot20-24	NR	12,814	0.05	11,591	3.74	85	6,604	3,327	140
968800	Vilas	Anvil	398	Slot20-24	NR	1,106	0.19	688	2.78	7	548	543	84
2339900	Vilas	Escanaba	293	28	NR	1,622	0.10	1,294	5.54	60	658	515	42
2335300	Vilas	Sanford	88	1>14	NR	146	0.06	128	1.66	8	131	117	28
2406500	Ashland	Gordon	142	1>14	NR	63	0.16	43	0.44	1	12	35	15
1881100	Barron	Silver	337	Slot20-24	C-NR	731	0.14	535	2.17	1	134	501	96
2742700	Bayfield	Upper Eau Claire	996	18	C-NR	765	0.25	388	0.77	1	54	385	325
2866200	Douglas	Lake Minnesuing	432	1>14	O-ST	156	0.27	74	0.36	1	5	72	78
2133200	Eau Claire	Lake Eau Claire	860	Slot20-24	NR	4,069	0.07	3,536	4.73	59	2,540	1,306	165
2296500	Iron	Mc Dermott	84	Slot20-24	ST	50	0.23	27	0.60	1	1	25	22
2949200	Iron	Pine	312	1>14	NR	1,196	0.07	1,030	3.83	575	526	84	7
2318500	Iron	Randall	115	1>14	NR	207	0.11	162	1.80	1	39	135	32
2316100	Iron	Sandy Beach	111	Slot20-24	ST	121	0.18	78	1.09	1	2	22	97
2620600	Polk	Balsam	2,054	18	C-ST	1,032	0.24	545	0.50	1	76	480	475
2382300	Sawyer	Barber	238	Slot20-24	C-ST	450	0.09	368	1.89	24	56	250	61
2113300	Sawyer	Lake Chetac	1,920	18	C-ST	4,715	0.13	3,472	2.46	12	2,790	1,029	884
2704200	Sawyer	Nelson	2,503	18	C-ST	1,364	0.11	1,076	0.54	8	229	524	603
2046500	Sawyer	Windfall	102	Slot20-24	NR	330	0.11	258	3.24	33	83	130	2

Appendix D. Continued.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	PE - Males	CV Male PE	PE - Females	CV Female PE	M:F Ratio
378400	Forest	Roberts	414.5	Slot20-24	C-ST	388	0.12	146	0.52	2.66
376900	Forest	Lily	213	Slot20-24	NR	875	0.12	156	0.37	5.61
406900	Forest	Pine	1,670	Slot20-24	ST	605	0.15	1,304	0.64	0.46
388100	Langlade	Pickerel	1,299	18	O-ST	13	0.23	38	0.00	0.34
388500	Forest	Crane	337	18	ST	234	0.27	69	0.53	3.39
387200	Langlade	Otter	83	Slot20-24	C-NR	17	0.18	39	0.24	0.43
1017400	Lincoln	Silver	95	Slot20-24	NR-2	47	0.13	26	0.00	1.80
1427400	Marathon	Big Eau Pleine	6,830	Slot20-24	C-NR	18,476	0.05	9,534	0.33	1.94
1588200	Oneida	Two Sisters	719	18	C-NR	451	0.15	464	0.36	0.97
1544800	Oneida	Carrol	352	Slot20-24	ST	219	0.19	287	0.48	0.76
1544700	Oneida	Madeline	159	Slot20-24	REM	30	0.14	12	0.00	2.50
1545600	Vilas	Big Arbor Vitae	1,090	1>14	NR	3,277	0.06	1,301	0.62	2.52
1545300	Vilas	Little Arbor Vitae	534	1>14	C-ST	1,458	0.08	794	0.33	1.84
1623801	Vilas	Twin L Chain	3,430	Slot20-24	NR	11,106	0.05	2,227	0.32	4.99
968800	Vilas	Anvil	398	Slot20-24	NR	678	0.09	325	0.40	2.09
2339900	Vilas	Escanaba	293	28	NR	846	0.10	659	0.23	1.28
2335300	Vilas	Sanford	88	1>14	NR	84	0.00	42	0.12	2.00
2406500	Ashland	Gordon	142	1>14	NR	37	0.23	28	0.15	1.32
1881100	Barron	Silver	337	Slot20-24	C-NR	500	0.12	270	0.49	1.85
2742700	Bayfield	Upper Eau Claire	996	18	C-NR	323	0.41	322	0.27	1.00
2866200	Douglas	Lake Minnesuing	432	1>14	O-ST	23	0.14	83	0.31	0.28
2133200	Eau Claire	Lake Eau Claire	860	Slot20-24	NR	3,534	0.07	568	0.41	6.22
2296500	Iron	Mc Dermott	84	Slot20-24	ST	17	0.24	22	0.14	0.77
2949200	Iron	Pine	312	1>14	NR	1,097	0.07	122	0.45	8.99
2318500	Iron	Randall	115	1>14	NR	145	0.13	65	0.18	2.23
2316100	Iron	Sandy Beach	111	Slot20-24	ST	21	0.08	58	0.00	0.36
2620600	Polk	Balsam	2,054	18	C-ST	513	0.20	435	0.45	1.18
2382300	Sawyer	Barber	238	Slot20-24	C-ST	209	0.09	451	0.46	0.46
2113300	Sawyer	Lake Chetac	1,920	18	C-ST	3,038	0.12	2,302	0.41	1.32
2704200	Sawyer	Nelson	2,503	18	C-ST	339	0.11	1,117	0.17	0.30
2046500	Sawyer	Windfall	102	Slot20-24	NR	191	0.14	42	0.33	4.55

Appendix E. YOY Walleye Survey Summaries.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
GORDON	ASHLAND	2406500	142	NR	natural	10/12/2017	56	4.3	3.4	79	0	-	-	-	0.0	NA	NA	9	8.8	10.1	None	2.6	N
MINERAL	ASHLAND	2916900	225	NR	natural	9/11/2017	65	5.3	4.9	92	67	4.6	6.7	5.0, 5.5	13.67	NA	NA	66	7.7	9.9	9.3	13.5	N
BEAR	BARRON	2105100	1358	C-ST	stocked	10/9/2017	60	14.9	6.9	46	0	-	-	-	0.00	NA	NA	6	8.8	10.4	None	0.9	N
DUCK	BARRON	2100300	100	NR	natural	10/10/2017	58	1.5	1.5	100	6	6	7.4	None	4.00	0.94	0.30	9	9.7	10.4	10.4	6.0	N
HORSESHOE	BARRON	2469800	115	ST	stocked	9/25/2017	69	2.5	2.5	100	1	7	7	None	0.40	NA	NA	3	8.0	9.1	None	1.2	N
LAKE MONTANIS	BARRON	2103200	200	C-ST	stocked	9/28/2017	66	2.7	2.7	100	23	5.3	6.6	5.9-6.0	8.52	1.99	0.98	1	10.4	10.4	None	0.4	B
LOWER TURTLE	BARRON	2079700	276	C-ST	stocked	9/27/2017	66	3.8	3.8	100	3	7.5	7.8	None	0.79	NA	NA	41	7.9	9.9	8.8,9.0,9.3,9.4	10.8	N
SILVER	BARRON	1881100	337	C-NR	natural	10/3/2017	62	4.4	4.4	100	124	4.5	7.2	6	28.18	NA	NA	4	7.5	9.9	None	0.9	B
UPPER TURTLE	BARRON	2079800	438	C-ST	stocked	9/26/2017	68	4.8	4.8	100	0	-	-	-	0.00	0.00	0.00	63	7.5	10.8	9.8	13.1	N
BONY	BAYFIELD	2742500	191	C-NR	natural	9/11/2017	65	2.7	2.7	100	37	4.6	7.1	6.3, 6.4	13.70	3.21	2.07	0	-	-	-	0.0	N
CRYSTAL	BAYFIELD	2897300	111	C-NR	natural	9/7/2017	62	2.5	2.5	100	3	5.7	6.1	None	1.20	0.28	0.05	0	-	-	-	0.0	N
DIAMOND	BAYFIELD	2897100	341	C-ST	stocked	9/6/2017	62	5.0	5.0	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.0	A
MIDDLE EAU CLAIRE	BAYFIELD	2742100	902	C-NR	natural	9/27/2017	63	11.0	7.7	70	35	4.9	6.5	5.2	4.55	NA	NA	46	7.3	10.7	7.9,8.6,8.8,9.0	6.0	N
UPPER EAU CLAIRE	BAYFIELD	2742700	996	C-NR	natural	9/12/2017	64	11.1	11.1	100	104	5.2	7.1	6	9.37	2.19	1.14	1	10.2	10.2	None	0.1	A
BIG MCKENZIE	BURNETT	2706800	1185	C-ST	stocked	10/5/2017	60	7.1	5.5	77	0	-	-	-	0.00	NA	NA	25	8.8	12.9	12.0-12.4	4.5	N
CLAM RIVER FLOWA	BURNETT	2654500	359	NR	natural	9/13/2017	69	6.4	4.3	67	10	4.5	6.2	5.5	2.33	NA	NA	4	8.0	9.2	None	0.9	N
DEVILS	BURNETT	2461100	1001	O-ST	remnant	9/20/2017	67	5.2	5.2	100	41	5.4	6.8	5.9	7.88	1.85	0.87	21	8.1	11.3	9.9,10.4-10.5	4.0	B
LIPSETT	BURNETT	2678100	393	O-ST	remnant	9/11/2017	67	3.5	3.5	100	0	-	-	-	0.00	0.00	0.00	1	9.3	9.3	None	0.3	N
LOWER CLAM	BURNETT	2655300	337	REM	remnant	9/12/2017	69	3.8	1.8	47	16	5.3	8.2	6.3,6.5,6.6	8.89	NA	NA	2	11.7	13.4	None	1.1	N
UPPER CLAM	BURNETT	2656200	1207	REM	remnant	9/12/2017	69	12.5	3.9	31	27	4.8	7.9	5.9	6.92	NA	NA	8	9.8	12.5	None	2.1	N
LAKE WISSOTA	CHIPPEWA	2152800	6300	NR	natural	10/10/2017	59	56.3	11.4	20	1158	4.7	7.7	6	101.58	NA	NA	NA	-	-	-	NA	EB
LONG	CHIPPEWA	2351400	1052	C-NR	natural	10/9/2017	61	14.0	14.0	100	169	5.6	8.1	6.5	12.07	2.82	1.70	194	8.3	11.2	9.8	13.9	A
OTTER	CHIPPEWA	2157000	661	ST	stocked	9/26/2017	70	20.0	14.1	71	0	-	-	-	0.00	NA	NA	0	-	-	-	0.0	A
MEAD	CLARK	2143900	320	O-ST	remnant	10/11/2017	56	8.2	4.7	57	0	-	-	-	0.00	NA	NA	45	10.4	12.9	12.0-12.4	9.6	N
AMNICON	DOUGLAS	2858100	426	ST	stocked	10/4/2017	62	6.0	6.0	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.0	N
LAKE MINNESUING	DOUGLAS	2866200	432	C-ST	stocked	9/13/2017	65	6.9	6.9	100	0	-	-	-	0.00	NA	NA	1	8.1	8.1	None	0.1	A
LAKE NEBAGAMON	DOUGLAS	2865000	914	C-NR	natural	9/19/2017	65	10.8	10.8	100	24	5.2	7.1	5.5, 6.0	2.22	0.52	0.12	150	7.5	10.5	9.6	13.9	A
LOWER EAU CLAIRE	DOUGLAS	2741600	802	C-NR	natural	9/12/2017	65	7.8	7.8	100	13	4	5.7	5.3	1.67	0.39	0.08	7	8.1	9.9	None	0.9	A
ALTOONA	EAU CLAIRE	2128100	840	NR	natural	10/3/2017	64	9.4	4.0	43	444	4.6	7.3	5.5	111.00	NA	NA	55	9.1	11.9	10.8-10.9	13.8	EB
LAKE EAU CLAIRE	EAU CLAIRE	2133200	860	NR	natural	10/4/2017	63	24.3	3.5	14	188	5.3	7.7	6.7	53.71	NA	NA	48	9.8	11.6	10.5	13.7	N
GILE FLOWAGE	IRON	2942300	3384	NR	natural	10/18/2017	52	27.2	2.9	11	19	3.9	5.8	4.7, 5.2	6.55	NA	NA	76	6.9	9.7	9.1	26.2	N
LONG	IRON	2303500	396	C-ST	stocked	9/7/2017	59	12.5	10.3	82	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
MC DERMOTT	IRON	2296500	84	ST	stocked	9/5/2017	61	2.6	2.6	100	0	-	-	-	0.00	0.00	0.00	1	9.2	9.2	None	0.38	A
PINE	IRON	2949200	312	NR	natural	9/28/2017	61	6.0	6.0	100	113	4.6	6.1	5.3	18.83	4.41	3.40	45	7.3	8.8	7.3, 8.1	7.50	N
RANDALL	IRON	2318500	115	NR	natural	9/12/2017	64	2.1	2.1	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	N
SANDY BEACH	IRON	2316100	111	ST	stocked	9/5/2017	59	2.1	2.1	100	0	-	-	-	0.00	0.00	0.00	3	8.9	9.7	None	1.43	A
SPIDER	IRON	2306300	352	NR	natural	10/16/2017	54	7.3	7.3	100	3	5.7	6.6	None	0.41	0.10	0.01	8	7.9	9.8	None	1.10	N
TRUDE	IRON	2295200	792	NR	natural	10/9/2017	59	15.1	3.4	23	55	5.3	7.1	6.2	16.18	NA	NA	30	8.7	10.6	9.7	8.82	N
TURTLE FLAMBEAU F	IRON	2294900	13122	NR	natural	10/4-5/2017	58	206.3	20.5	10	968	3.3	6.7	5.0	47.22	NA	NA	382	6.9	10.0	8.5	18.63	N
BALSAM	POLK	2620600	2054	O-ST	remnant	10/5/2017	62	22.7	22.7	100	2	7.5	7.8	None	0.09	NA	NA	25	8.1	10.4	10.1	1.10	N
BIG ROUND	POLK	2627400	1015	ST	stocked	9/21/2017	68	5.7	5.7	100	0	-	-	-	0.00	0.00	0.00	1	9.8	9.8	None	0.18	A
HALF MOON	POLK	2621100	579	O-ST	remnant	9/14/2017	68	7.1	5.6	79	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
NORTH PIPE	POLK	2485700	58	C-ST	stocked	9/13/2017	69	1.6	1.6	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.0	N
PIPE	POLK	2490500	284	C-ST	stocked	9/13/2017	69	5.0	5.0	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.0	A
WARD	POLK	2599400	91	ST	stocked	10/11/2017	58	2.3	2.3	100	0	-	-	-	0.00	0.00	0.00	35	8.8	11.5	10.5	15.2	N
BIG DARDIS	PRICE	2244200	144	C-ST	stocked	9/21/2017	73	2.8	2.8	100	1	7.4	7.4	None	0.36	NA	NA	6	7.9	9.2	None	2.1	N
MUSSER	PRICE	2245100	563	ST	stocked	10/3/2017	62	12.1	4.0	33	0	-	-	-	0.00	NA	NA	50	6.8	9.1	7.5	12.5	N
PIKE	PRICE	2268300	806	NR	natural	9/26/2017	69	10.9	4.0	37	6	5.2	6.4	6	1.50	NA	NA	82	7.3	9.9	8.6	20.5	N
ROUND	PRICE	2267800	726	NR	natural	9/27/2017	65	5.1	6.3	124	31	4.3	5.6	5.2	4.92	1.15	0.42	255	7.0	9.6	8.0, 8.3	40.5	N
SOLBERG	PRICE	2242500	859	NR	natural	9/18/2017	67	12.4	4.0	32	2	6.5	6.5	None	0.50	NA	NA	0	-	-	-	0.0	A
WORCESTER	PRICE	2210900	100	NR	natural	9/20/2017	67	2.0	2.0	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.0	N
CHAIN	RUSK	2350500	468	ST	stocked	9/14/2017	70	7.9	6.1	77	1	5.7	5.7	None	0.16	NA	NA	4	10.6	11.0	None	0.7	A
ISLAND	RUSK	2350200	526	C-ST	stocked	9/14/2017	70	5.8	5.8	100	0	-	-	-	0.00	0.00	0.00	1	10.2	10.2	None	0.17	A
PULASKI	RUSK	1875900	126	C-NR	natural	9/19/2017	68	2.5	2.5	100	13	5.5	6.7	5.7	5.20	1.22	0.45	12	8.4	10.2	None	4.80	N
SAND	RUSK	2353600	262	ST	stocked	9/27/2017	69	4.8	4.8	100	1	6.5	6.5	None	0.21	0.05	0.00	0	-	-	-	0.00	B
BARBER	SAWYER	2382300	238	ST	stocked	9/28/2017	66	4.8	2.6	54	1	7.0	7.0	None	0.38	NA	NA	68	7.7	9.8	8.6	26.15	N
BLACK DAN	SAWYER	2381900	128	O-ST	remnant	10/3/2017	62	3.0	3.0	100	1	7.6	7.6	None	0.33	0.08	0.01	29	8.3	10.3	8.7, 9.0	9.67	N
BLAISDELL	SAWYER	2402200	356	C-ST	stocked	9/27/2017	63	7.6	7.6	100	5	5.2	6.0	None	0.66	0.15	0.02	12	7.4	9.4	8.8	1.58	N
BLUEBERRY	SAWYER	1835700	280	ST	stocked	10/9/2017	58	4.2	4.2	100	0	-	-	-	0.00	0.00	0.00	20	7.0	9.4	9.4	4.76	N
CONNORS	SAWYER	2275100	429	NR	natural	10/4/2017	62	5.0	3.0	60	29	5.2	7.9	6.3	9.67	NA	NA	17	8.7	10.6	9.5	5.67	N
DURPHEE	SAWYER	2396800	193	ST	stocked	9/26/2017	67	2.0	2.0	100	0	-	-	-	0.00	0.00	0.00	1	10.7	10.7	None	0.50	N
GHOST	SAWYER	2423000	372	C-ST	stocked	9/11/2017	67	7.3	4.8	66	0	-	-	-	0.00	NA	NA	50	8.9	10.9	9.8-9.9	10.42	A
GRINDSTONE	SAWYER	2391200	3111	NR	natural	9/20/2017	64	10.5	10.5	100	261	3.5	7.2	5.8	24.86	5.82	5.25	38	8.2	10.7	9.3, 10.1	3.62	N

Appendix E. Continued.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
ISLAND	SAWYER	2381800	67	O-ST	remnant	10/3/2017	63	1.5	1.5	100	0	-	-	-	0.00	0.00	0.00	3.0	7.8	8.8	None	2.00	N
LAKE CHETAC	SAWYER	2113300	1920	C-NR	natural	10/4/2017	60	17.5	17.5	100	0	-	-	-	0.00	0.00	0.00	339.0	7.4	11.3	9.0	19.37	N
LOST LAND	SAWYER	2418600	1304	C-ST	stocked	9/19/2017	67	11.3	8.6	76	9	5.5	6.3	None	1.05	NA	NA	1.0	9.6	9.6	None	0.12	BA
LOWER CLAM	SAWYER	2429300	203	C-ST	stocked	9/14/2017	72	4.2	3.8	90	4	5.3	6.8	None	1.05	NA	NA	31.0	8.5	10.6	9.6	8.16	B
NELSON	SAWYER	2704200	2503	C-ST	stocked	9/18/2017	63	31.4	31.4	100	0	-	-	-	0.00	NA	NA	18.0	8.7	9.8	9.7	0.57	A
OSPREY	SAWYER	2395100	208	C-ST	stocked	9/13/2017	72	6.0	2.6	43	1	5.8	5.8	None	0.38	NA	NA	0.0	-	-	-	0.00	N
SISSABAGAMA	SAWYER	2393500	719	C-NR	natural	9/25/2017	68	8.2	8.2	100	0	-	-	-	0.00	0.00	0.00	47.0	8.1	10.2	9.0	5.73	N
SMITH	SAWYER	2726100	323	O-ST	remnant	9/7/2017	63	4.5	4.0	89	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.00	B
SPIDER	SAWYER	2435700	1454	C-ST	stocked	9/6/2017	64	20.8	5.0	24	0	-	-	-	0.00	NA	NA	13.0	10.0	10.8	10.8	2.60	N
WHITEFISH	SAWYER	2392000	786	C-ST	stocked	9/26/2017	64	8.1	8.1	100	3	5.6	6.3	None	0.37	0.09	0.01	25.0	7.4	8.8	8.2	3.09	N
WINDFALL	SAWYER	2046500	102	NR	natural	10/1/2017	65	1.6	1.6	100	0	-	-	-	0.00	0.00	0.00	0.0	-	-	-	0.00	N
WINDIGO	SAWYER	2046600	522	NR	natural	10/3/2017	61	9.0	2.9	32	18	4.0	6.8	6.2	6.21	NA	NA	2.0	9.5	9.7	None	0.69	N
LONG	WASHBURN	2106800	3290	C-NR	natural	10/3/2017	63	38.0	12.1	32	1	7.5	7.5	None	0.08	NA	NA	73.0	8.0	12.4	10.3	6.03	N
MIDDLE McKENZIE	WASHBURN	2706500	530	C-ST	stocked	10/4/2017	60	4.1	4.1	100	0	-	-	-	0.00	0.00	0.00	9.0	10.7	12.9	12.5-12.9	2.20	N
LAKE NANCY	WASHBURN	2691500	772	C-ST	stocked	9/25/2017	69	10.9	8.1	74	0	-	-	-	0.00	NA	NA	34.0	8.9	11.8	10.6	4.20	N
SHELL	WASHBURN	2496300	2580	NR	natural	9/27/2017	64	10.2	5.5	54	568	3.6	7.9	4.0	103.27	NA	NA	4.0	9.7	10.7	None	0.73	N
STONE	WASHBURN	1884100	523	C-ST	stocked	9/21/2017	66	4.0	4.0	100	11	4.1	6.1	None	2.75	0.64	0.17	10.0	8.1	10.6	None	2.50	N
EMILY	FLORENCE	651600	191	ST	stocked	9/25/2017	73	2.5	2.1	84	10	6.3	7.3	6.8	4.76	NA	NA	0.0	-	-	-	0.00	B
PATTEN	FLORENCE	653700	255	NR	natural	10/03/2017	64	3.9	4.1	105	275	4.0	7.8	5.3	67.07	NA	NA	3.0	10.4	11.6	-	0.73	N
SEIDEL	FLORENCE	672000	55	O	#N/A	9/26/2017	70	1.4	0.5	36	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.00	N
CRANE	FOREST	388500	337	ST	stocked	9/27/2017	65	3.9	4.1	105	27	4.8	6.5	5.4	6.59	1.54	0.66	26.0	8.3	11.9	9.3	6.34	B
FRANKLIN	FOREST	692900	892	C-NR	natural	10/02/2017	63	6.6	7.5	114	22	3.3	5.7	4.3	2.93	NA	NA	0.0	-	-	-	0.00	N
LILY	FOREST	376900	213	NR	natural	10/4/2017	63	2.9	2.9	100	4	5.7	6.8	-	1.38	0.32	0.06	1.0	8.3	8.3	-	0.34	N
METONGA	FOREST	394400	1991	C-NR	natural	10/09/2017	61	7.9	8.6	109	339	5.0	8.0	6.7	39.42	NA	NA	10.0	10.7	11.9	-	1.16	N
RANGELINE	FOREST	478200	82	C-ST	stocked	9/27/2017	67	1.3	1.9	146	0	-	-	-	0.00	NA	NA	11.0	7.9	9.4	8.8	5.79	N
ROBERTS	FOREST	378400	415	C-ST	stocked	9/06/2017	63	4.5	5.0	111	6	5.6	6.0	-	1.20	NA	NA	0.0	-	-	-	0.00	A
OTTER	LANGLADE	387200	83	NR	natural	9/12/2017	69	2.4	2.4	100	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.00	A
ROSE	LANGLADE	494200	112	ST	stocked	9/27/2017	69	7.3	3.8	52	0	-	-	-	0.00	NA	NA	1.0	11.9	11.9	-	0.26	N
SAWYER	LANGLADE	198100	149	C-NR	natural	9/26/2017	73	5.2	3.0	58	0	-	-	-	0.00	NA	NA	5.0	10.0	11.1	-	1.67	N
SUMMIT	LANGLADE	1445600	282	O-ST	remnant	9/11/2017	66	3.3	3.3	100	0	-	-	-	0.00	NA	NA	20.0	9.5	11.7	10.6	6.06	A
UPPER POST	LANGLADE	399200	757	ST	stocked	9/14/2017	69	7.6	4.7	62	0	-	-	-	0.0	NA	NA	0.0	-	-	-	0.0	A
PESABIC	LINCOLN	1481600	146	ST	stocked	9/25/2017	75	2.3	2.3	100	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.00	N
PINE	LINCOLN	1012100	134	ST	stocked	9/06/2017	64	2.7	2.7	100	0	-	-	-	0.00	NA	NA	1.0	11.4	11.4	-	0.37	N
SEVEN ISLAND	LINCOLN	1490300	132	C-NR	natural	9/13/2017	70	4.0	4.0	100	8	5.9	6.7	6.5	2.00	0.47	0.10	31.0	8.5	11.1	10.2	7.75	N
SILVER	LINCOLN	1017400	95	NR	natural	9/19/2017	69	2.3	2.1	91	8	5.3	7.2	6.5	3.81	0.89	0.28	0.0	-	-	-	0.00	N
SOMO	LINCOLN	1547700	472	C-ST	stocked	9/07/2017	63	14.2	4.0	28	1	7.6	7.6	-	0.25	NA	NA	12.0	7.7	9.8	8.3	3.0	N
SPIRIT RESERVOIR	LINCOLN	1506800	1664	NR	natural	9/20/2017	68	50.3	4.3	9	77	4.6	6.7	5.7	17.91	NA	NA	73.0	7.8	11.0	10.0	17.0	N
SQUAW	LINCOLN	1564400	79	ST	stocked	9/18/2017	67	2.3	2.3	100	0	-	-	-	0.00	0.00	0.00	26.0	7.4	9.9	8.7	11.3	N
TUG	LINCOLN	1482400	151	C-NR	natural	9/21/2017	69	2.7	2.3	85	0	-	-	-	0.00	NA	NA	36.0	7.2	10.6	8.8	15.7	N
BIG EAU PLEINE	MARATHON	1427400	6830	C-NR	natural	10/17/2017	58	66.3	11.0	17	120	6.2	8.8	7.2	10.91	NA	NA	2.0	9.7	10.4	-	0.2	B
PIKE	MARATHON	1406300	205	ST	stocked	10/04/2017	64	2.6	2.4	92	0	-	-	-	0.00	NA	NA	2.0	9.0	10.8	-	0.8	N
HIGH FALLS FLOWAG	MARINETTE	540600	1498	ST	stocked	9/19/2017	67	30.2	4.3	14	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.0	A
SANDSTONE FLOWA	MARINETTE	531300	153	C-NR	natural	9/07/2017	63	6.4	3.8	59	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.0	A
ARCHIBALD	OCONTO	417400	393	C-ST	stocked	10/16/2017	58	8.8	4.5	51	8	5.2	6.7	-	1.78	NA	NA	12.0	9.0	10.8	9.9	2.7	N
TOWNSEND FLOWA	OCONTO	465000	476	O-ST	remnant	10/11/2017	57	11.6	6.0	52	0	-	-	-	0.00	NA	NA	9.0	8.5	10.6	-	1.5	N
BOOT	OCONTO	418700	235	C-NR	natural	9/11/2017	67	3.8	3.8	100	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.0	BA
BUCKSKIN	ONEIDA	2272600	634	C-NR	natural	9/26/2017	71	6.3	7.0	111	3	5.4	6.3	-	0.43	NA	NA	0.0	-	-	-	0.0	B
CARROL	ONEIDA	1544800	352	ST	stocked	10/05/2017	64	6.1	6.5	107	0	-	-	-	0.00	0.00	0.00	2.0	9.7	9.9	-	0.3	N
EAST HORSEHEAD	ONEIDA	1523000	184	ST	stocked	9/27/2017	67	3.7	3.2	86	0	-	-	-	0.00	NA	NA	149.0	7.4	10.4	9.1	46.6	N
GEORGE	ONEIDA	1569600	435	NR	natural	9/07/2017	63	6.2	6.3	102	7	4.4	7.3	-	1.11	NA	NA	10.0	8.1	8.9	-	1.6	B
KATHERINE	ONEIDA	1543300	590	NR	natural	9/06/2017	65	9.7	13.3	137	18	4.4	6.4	-	1.35	NA	NA	0.0	-	-	-	0.0	B
KAWAGUESAGA	ONEIDA	1542300	670	C-ST	stocked	9/11/2017	68	11.1	12.1	109	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.0	A
MADELINE	ONEIDA	1545700	159	REM	remnant	10/05/2017	61	3.1	3.8	122	0	-	-	-	0.00	0.00	0.00	0.0	-	-	-	0.0	N
MINOCQUA	ONEIDA	1542400	1360	C-ST	stocked	9/12/2017	66	19.1	19.1	100	0	-	-	-	0.00	NA	NA	1.0	8.6	8.6	-	0.1	A
MUSKELLUNGE	ONEIDA	1595600	284	C-NR	natural	9/21/2017	68	4.0	4.4	110	0	-	-	-	0.00	NA	NA	40.0	7.3	9.8	7.8	9.1	N
PELICAN	ONEIDA	1579900	3585	NR	natural	9/26/2017	69	16.7	15.3	92	64	4.3	6.6	5.5	4.18	NA	NA	640.0	6.8	10.2	8.6	41.8	N
SPIDER	ONEIDA	1586600	123	NR	natural	9/14/2017	70	3.1	2.5	81	0	-	-	-	0.00	NA	NA	0.0	-	-	-	0.0	N
SQUASH	ONEIDA	1019500	396	C-NR	natural	9/19/2017	66	7.4	7.7	104	1	6.1	6.1	-	0.13	NA	NA	5.0	9.7	10.6	-	0.6	N
THOMPSON	ONEIDA	1569900	382	C-ST	stocked	9/20/2017	67	6.9	7.8	113	0	-	-	-	0.00	NA	NA	5.0	8.8	11.3	-	0.6	N
TOMAHAWK	ONEIDA	1542700	3392	C-ST	stocked	9/13/2017	68	30.2	30.2	100	1	5	5	-	0.03	NA	NA	330.0	7.8	11.3	9.7	10.9	N
TWO SISTERS	ONEIDA	1588200	719	C-NR	natural	10/03/2017	64	9.3	9.6	103	83	5.7	7.8	7.1	8.65	NA	NA	0.0	-	-	-	0.0	B
ALDER	VILAS	2329600	274	NR	natural	10/02/2017	62	3.9	2.9	74	12	4.6	6.7	5.4	4.14	NA	NA	14.0	6.9	9.9	8.2	4.8	N
ARROWHEAD	VILAS	1541500	99	ST	stocked	10/17/2017	57	2.0	2.3	115	1	6.3	6.3	-	0.43	0.10	0.01	2.0	9.8	10.3	-	0.9	N
BIG ARBOR VITAE	VILAS	1545600	1090	NR	natural	10/10/2017	60	7.8	8.4	108	208	4	7	6	24.76	NA	NA	51.0	7.3	10.0	9.6	6.1	N
DEAD PIKE	VILAS	2316600	297	C-ST	stocked	9/21/2017	66	3.8	3.8	100	0	-	-	-	0.00	0.00	0.00	34.0	6.5	9.3	8.0	8.9	N
ESCANABA	VILAS	2339900	293	NR	natural	9/14/2017	69	5.2	5.2	100	8	4.1	6.7	-	1.54	NA	NA	9.0	8.1	10.0	-	1.7	N
ESCANABA	VILAS	2339900	293	NR	natural	9/21/2017	68	5.2	5.2	100	4	4.1	6.7	-	0.77	NA	NA	10.0	8.1	10.0	-	1.9	N
ESCANABA	VILAS	2339900	293	NR	natural	9/27/2017	62	5.2	4.2	81	51	3.3	7.5	4.1	12.14	NA	NA	25.0	8.2	11.1	-	6.0	N
ESCANABA	VILAS	2339900	293	NR	natural	10/05/2017	58	5.2	5.2	100	52	3.7	7	-	10.00	NA	NA	12.0	8.5	10.4	-	2.3	N
ESCANABA	VILAS	2339900	293	NR	natural	10/09/2017	58	5.2	4.2	81	33	3.7	6.9	4.7	7.86	NA	NA	18.0	8.7	11.3	9.6	4.3	N
FISHTRAP	VILAS	2343200	329	C-NR	natural	10/11/2017	59	5.6	6.5	116	1	5.9	5.9	-	0.15	NA	NA	0.0	-	-	-	0.0	N
FOUND	VILAS	1593800	326	C-ST	stocked	9/05/2017	64	3.7	4.6	124	0	-	-	-	0.00	0.00	0.00	0.0	-	-	-	0.0	A
HIGH	VILAS	2344000	734	C-NR	natural	10/18/2017	56	9.4	7.1	76	0	-	-	-	0.00	NA	NA	6.0	9.3	10.8	-	0.8	B
KENTUCK	VILAS	716800	958	C-NR	natural	10/17/2017	54	6.0	6.4	107	300	5.6	7.8	6.5	46.88	10.97	14.16	28.0	10.1	12.7	12.2	4.4	N

Appendix E. Continued.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
LITTLE ARBOR VITAE	VILAS	1545300	534	C-ST	stocked	10/11/2017	59	7.1	5.3	75	219.0	4.6	7.7	6.6	41.32	NA	NA	88	9.1	10.9	10.3	16.6	N
LITTLE JOHN	VILAS	2332300	166	C-NR	natural	10/12/2017	58	3.3	3.4	103	256.0	5.7	8.1	7.1	75.29	NA	NA	3	8.1	9.3	-	0.9	N
LITTLE SPIDER	VILAS	1540400	235	ST	stocked	9/05/2017	65	4.6	4.9	107	0.0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.0	A
LITTLE ST GERMAIN	VILAS	1596300	980	C-ST	stocked	9/19/2017	68	12.9	17.2	133	0.0	-	-	-	0.00	NA	NA	0	-	-	-	0.0	A
LITTLE STAR	VILAS	2334300	244	NR	natural	10/02/2017	64	3.8	3.8	100	11.0	4.6	6.9	6.0	2.89	NA	NA	11	7.1	10.3	9.2	2.89	N
LITTLE TROUT	VILAS	2321600	978	C-	natural	9/27/2017	64	5.4	3.6	67	19.0	4.5	5.8	-	5.28	NA	NA	2	8.4	9.8	-	0.56	N
LONG	VILAS	1602300	872	C-ST	stocked	9/20/2017	66	8.2	9.1	111	84.0	4.2	6.8	5.7	9.23	2.16	1.12	0	-	-	-	0.00	BA
MANITOWISH	VILAS	2329400	506	NR	natural	10/02/2017	61	7.3	7.3	100	31.0	4.1	7.0	5.2	4.25	NA	NA	12	7.5	9.3	8.8	1.64	N
MUSKELLUNGE	VILAS	1596600	272	ST	stocked	9/12/2017	67	3.6	4.0	111	0.0	-	-	-	0.00	NA	NA	4	8.1	9.5	-	1.00	N
PIONEER	VILAS	1623400	427	ST	stocked	9/26/2017	69	3.7	3.7	100	0.0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
PLUM	VILAS	1592400	1033	NR	natural	10/09/2017	61	14.5	15.6	108	427.0	3.4	6.9	4.4	27.37	6.41	6.11	31	7.6	9.9	8.8	1.99	N
SANFORD	VILAS	2335300	88	NR	natural	9/13/2017	73	2.4	2.4	100	6.0	4.7	5.7	-	2.50	NA	NA	8	10.4	11.3	-	3.33	N
SANFORD	VILAS	2335300	88	NR	natural	9/19/2017	67	2.4	2.4	100	4.0	6.0	7.1	-	1.67	NA	NA	5	9.3	11.9	-	2.08	N
SANFORD	VILAS	2335300	88	NR	natural	9/26/2017	67	2.4	2.4	100	2.0	5.7	5.9	-	0.83	NA	NA	4	10.4	10.8	-	1.67	N
SANFORD	VILAS	2335300	88	NR	natural	10/03/2017	64	2.4	2.4	100	2.0	6.4	6.4	-	0.83	NA	NA	5	10.7	11.7	-	2.08	N
SANFORD	VILAS	2335300	88	NR	natural	10/12/2017	55	2.4	2.4	100	4.0	6.5	6.8	-	1.67	NA	NA	4	11.0	11.4	-	1.67	N
SNIPE	VILAS	1018500	239	NR	natural	10/04/2017	61	3.5	3.9	111	37.0	4.5	6.4	5.6	9.49	2.22	1.16	39	7.2	9.2	-	10.00	N
SPARKLING	VILAS	1881900	154	C-ST	stocked	9/21/2017	67	2.3	2.8	122	4.0	5.9	6.6	-	1.43	NA	NA	0	-	-	-	0.00	B
SPIDER	VILAS	2329300	272	NR	natural	10/02/2017	62	5.9	5.6	95	31.0	3.7	6.7	4.9	5.54	NA	NA	35	7.7	9.3	8.8	6.25	N
STONE	VILAS	2328800	139	NR	natural	10/02/2017	62	3.0	3.2	107	37.0	4.3	7.2	6.5	11.56	2.71	1.59	32	7.0	9.9	-	10.00	N
TROUT	VILAS	2331600	3816	C-ST	stocked	10/04/2017	62	17.9	17.9	100	303.0	5.2	7.9	6.4	16.93	NA	NA	1	8.0	8.0	-	0.06	B
TWIN L CHAIN	VILAS	1623801	3430	NR	natural	10/16/2017	55	0.0	15.2	100	618.0	3.7	7.1	5.9	40.66	NA	NA	110	7.5	10.3	9.4	7.24	N
WILD RICE	VILAS	2329800	379	NR	natural	10/02/2017	63	3.7	3.6	97	1.0	3.7	3.7	-	0.28	NA	NA	11	5.7	10.4	-	3.06	N

Appendix F. Walleye Exploitation Rates.

F-1. Information on fin clipped fish in population (prior to creel) and those observed in angler creels used to estimate angler harvest and exploitation rates during the 2017-2018 fishing season.

						Clips Given Prior to Creel				Clips Observed in Creel					
WBIC	County	Lake	Acres	Recruit. Code	Size Limit	Clip Given	# Clips Given	#Clips ≥14"	#Clips ≥20"	# Clips Observed	# Clips Projected	# Clips Obs. ≥14"	# Clips Proj. ≥14"	# Clips Obs. ≥20"	# Clips Proj. ≥20"
1588200	Oneida	Two Sisters	719	C-NR	18	RV	528	488	264	8	13	8	13	7	11
1545600	Vilas	Big Arbor Vitae	1090	NR	1>14	RV	1,687	1,303	149	30	199	22	146	1	7
692400	Forest	Butternut	1293	C-NR	20-24 Slot	FT,LP	459	331	73	12	36	12	36	3	9
1544800	Oneida	Carrol	352	ST	20-24 Slot	RP	212	200	90	2	11	2	11	1	6
376900	Forest	Lily	213	NR	20-24 Slot	LP	528	351	55	4	22	4	22	0	0
1545300	Vilas	Little Arbor Vitae	534	C-ST	1>14	LP	1,226	941	298	88	275	78	244	26	81
1544700	Oneida	Madeline	159	REM	20-24 Slot	RP	35	32	7	1	2	1	2	1	2
387200	Langlade	Otter	83	NR	20-24 Slot	LP	37	37	27	2	10	2	10	2	10
378400	Forest	Roberts	415	C-ST	20-24 Slot	LP	355	354	83	3	9	3	9	0	0
1623801	Vilas	Twin Lake Chain	3430	NR	20-24 Slot	LP	6,604	3,327	140	46	367	46	367	0	0
2949200	Iron	Pine	312	NR	1>14	RV	680	83	6	12	82	1	7	0	0
2704200	Sawyer	Nelson	2503	C-ST	18	RV	583	543	234	1	3	1	3	0	0
2866200	Douglas	L Minnesuing	432	C-ST	1>14	RV	71	70	41	1	3	1	3	0	0
2113300	Sawyer	L Chetac	1920	C-NR	18	RV	1,230	622	146	2	43	2	43	0	0
2451900	Washbur	Bass	188	NR	1>14	FT	213	161	0	3	7	3	7	0	0
2620600	Polk	Balsam	2054	O-ST	18	RV	262	261	81	0	N/A	0	--	0	--
2742700	Bayfield	Upper Eau Claire	996	C-NR	18	RV	796	189	104	2	11	2	11	1	6

F-2. Estimated angler and tribal harvest and associated walleye exploitation rates for lakes surveyed during the 2017-2018 fishing season.

County	Lake	Acres	Adult PE	Angler Harvest	Tribal Harvest	Total Harvest	Angler Exploitation	Angler Exploitation ≥14"	Angler Exploitation ≥20"	Tribal Exploitation	Total Exploitation
Oneida	Two Sisters	719	978	38	217	255	0.0246	0.0266	0.0431	0.2219	0.2465
Vilas	Big Arbor Vitae	1090	4775	1585	470	2055	0.1180	0.1120	0.0445	0.0984	0.2164
Forest	Butternut	1293	1992	104	171	275	0.0784	0.1088	0.1233	0.0858	0.1643
Oneida	Carrol	352	551	144	56	200	0.0519	0.0550	0.0611	0.1016	0.1535
Forest	Lily	213	1111	110	88	198	0.0417	0.0627	0.0000	0.0792	0.1209
Vilas	Little Arbor Vitae	534	2059	1699	49	1748	0.2243	0.2590	0.2727	0.0238	0.2481
Oneida	Madeline	159	52	2	0	2	0.0571	0.0625	0.2857	0.0000	0.0571
Langlade	Otter	83	54	15	0	15	0.2703	0.2703	0.3704	0.0000	0.2703
Forest	Roberts	415	625	64	70	134	0.0254	0.0254	0.0000	0.1120	0.1374
Vilas	Twin Lake Chain	3430	12814	2322	561	2883	0.0556	0.1103	0.0000	0.0438	0.0994
Iron	Pine	312	1196	544	21	565	0.1206	0.0823	0.0000	0.0176	0.1381
Sawyer	Nelson	2503	1364	95	34	129	0.0051	0.0055	0.0000	0.0249	0.0301
Douglas	L Minnesuing	432	156	54	7	61	0.0423	0.0429	0.0000	0.0449	0.0871
Sawyer	L Chetac	1920	4715	435	200	635	0.0350	0.0691	0.0000	0.0424	0.0774
Washburn	Bass	188	477	9	18	27	0.0329	0.0435	--	0.0377	0.0706
Polk	Balsam	2054	1032	24	35	59	--	--	--	0.0339	N/A
Bayfield	Upper Eau Claire	996	765	131	97	228	0.0138	0.0582	0.0529	0.1268	0.1406

Appendix G. Safe harvest of walleye and musky calculated for individual lakes within the Wisconsin Ceded Territory during 2017.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Ashland	Augustine L	2410400	166			Other	5
Ashland	Bear L	2403200	204	Other	49	Other	6
Ashland	Beaver Dam L	2916700	118			Other	4
Ashland	Beaver L	2935400	25			Other	2
Ashland	Cub L	1842600	31			Other	2
Ashland	Day L	2430300	641	Other	15	Other	12
Ashland	E Twin L	2429000	110			Other	4
Ashland	English L	2914800	244	Other	31	Other	7
Ashland	Eureka L	2935600	39			Other	2
Ashland	Gordon L	2406500	142	Other	44	Other	5
Ashland	L Galilee	2935500	213	Other	7	Other	6
Ashland	Meder L	2935300	135	Other	18		
Ashland	Mineral L	2916900	225	Other	82	Other	6
Ashland	Moquah L	2918200	50	Other	2	Other	2
Ashland	Pelican L	2404800	46	Other	11	Other	2
Ashland	Potter L	2917200	29	Other	8		
Ashland	Spider L	2918600	103	Other	14	Other	4
Ashland	Spillerberg L	2936200	75	Other	30	Other	3
Ashland	Tea L	2922700	50	Other	12		
Ashland	Torrey L	2406700	29			Other	2
Ashland	Upper Clam L	2429600	166	Other	22	Other	5
Ashland	Zielke L	2406900	21	Other	5		
Barron	Bass L	1832800	118	Other	5		
Barron	Bear L	2105100	1358	Other	152		
Barron	Beaver Dam L	2081200	1112	Other	20		
Barron	Big Dummy L	1835100	111	Other	4		
Barron	Big Moon L	2079000	191	Other	18	Other	6
Barron	Butternut L	2105800	141	Other	5		
Barron	Duck L	2100300	100	Other	51		
Barron	Echo L	2630200	161	Other	6		
Barron	Granite L	2100800	154	Other	58		
Barron	Hemlock L	2109800	357	1 Year Pe	51		
Barron	Horseshoe L	2469800	115	Other	17		
Barron	Horseshoe L	2630100	377	Other	10		
Barron	L Chetek	2094000	770	Other	91		
Barron	L Montanis	2103200	200	Other	31		
Barron	Little Sand L	2661600	101			Other	4
Barron	Loon L	2478600	94	Other	13		
Barron	Lower Devils L	1864000	162	Other	39		
Barron	Lower Turtle L	2079700	276	Other	39		
Barron	Lower Vermillion	2098200	208	Other	27		
Barron	Minnow L	1866600	26	Other	1		
Barron	Mud L	2094600	577	Other	20		
Barron	Pokegama L	2094300	506	Other	58		
Barron	Poskin L	2098000	150	Other	16		
Barron	Prairie L	2094100	1534	Other	176		
Barron	Red Cedar L	2109600	1841	1 Year Pe	1116		
Barron	Rice L	2103900	939			Other	15
Barron	Sand L	2661100	322	Other	8	Other	8
Barron	Scott L	2630700	81	Other	3		
Barron	Silver L	1881100	337	Other	74		
Barron	Spring L	1882800	60	Other	15		
Barron	Staples L	2631200	305	Other	9		
Barron	Tenmile L	2089500	376	Other	47		
Barron	Upper Devils L	2043500	86	Other	4		
Barron	Upper Turtle L	2079800	438	Other	82		
Bayfield	Armstrong L	2754600	48	Other	12		
Bayfield	Atkins L	2734000	176	2 Year Pe	18		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Bayfield	Bellevue L	2755800	65	Other	3		
Bayfield	Bladder L	2756200	81	Other	20		
Bayfield	Bony L	2742500	191	1 Year Pe	33	Other	6
Bayfield	Buffalo L	1837700	179	Other	6	Other	5
Bayfield	Buskey Bay	2903800	100	Other	0	Other	4
Bayfield	Camp One L	2965700	37	Other	9		
Bayfield	Chippewa L	2431300	274			Other	7
Bayfield	Cisco L	2899200	95	Other	13		
Bayfield	Cranberry L	2732800	58	Other	3		
Bayfield	Crystal L	2874700	94	Other	4		
Bayfield	Crystal L	2897300	111	Other	23		
Bayfield	Deep L	2760100	125	Other	5		
Bayfield	Diamond L	2897100	341	2 Year Pe	50		
Bayfield	Drummond L	2899400	99	Other	13		
Bayfield	Eagle L	2902900	170			Other	5
Bayfield	Everett L	2761600	34	Other	2		
Bayfield	Finger L	2965500	76	Other	3		
Bayfield	Flynn L	2902800	29			Other	2
Bayfield	Ghost L	2423900	142			Other	5
Bayfield	Hammil L	2467900	83	Other	11		
Bayfield	Hart L	2903200	259	Other	0	Other	7
Bayfield	Hildur L	2902600	67			Other	3
Bayfield	Iron L	2877000	248	Other	8		
Bayfield	Island L	2470800	59	Other	3		
Bayfield	Jackson L	2734200	142	Other	5		
Bayfield	Kelly L	2472000	56	Other	3		
Bayfield	Kern L	2900500	91	Other	22		
Bayfield	L Knotting	2734700	80	Other	3		
Bayfield	L Millicent	2903700	183	Other	0	Other	6
Bayfield	L Owen	2900200	1323	Other	220		
Bayfield	L Ruth	2765900	66	Other	3		
Bayfield	L Tahkodah	2473500	152	Other	6		
Bayfield	Little Siskiwit L	2882200	37	Other	9		
Bayfield	Long L	2767100	263	Other	33		
Bayfield	Marengo L	2921100	99	Other	24		
Bayfield	Mccarry L	2903400	32			Other	2
Bayfield	Middle Eau Claire	2742100	902	1 Year Pe	122	Other	15
Bayfield	Mill Pond L	2899700	62	Other	15		
Bayfield	Mullenhoff L	2876500	69	Other	3		
Bayfield	Muskellunge L	2903600	45	Other	2		
Bayfield	Namekagon L	2732600	3227	Other	1541	Other	32
Bayfield	Perch L	2770800	25	Other	6		
Bayfield	Pickerel L	2489200	91	Other	4		
Bayfield	Pike L Treaty Cha	2902700	714	1 Year Pe	102		
Bayfield	Robinson L	2743300	91	Other	4		
Bayfield	Samoset L	2494800	46	Other	2		
Bayfield	Siskiwit L	2882300	330	1 Year Pe	142		
Bayfield	Spider L	2774200	75	Other	3		
Bayfield	Spider L	2876200	124	Other	5		
Bayfield	Swett L	2743700	88	Other	22		
Bayfield	Trapper L	2734500	84	Other	21		
Bayfield	Twin Bear L	2903100	172	Other	0	Other	5
Bayfield	Upper Eau Claire	2742700	996	Other	163	Other	16
Burnett	Benoit L	2678300	279			Other	7
Burnett	Big Mckenzie L	2706800	1185	Other	129	Other	18
Burnett	Big Sand L	2676800	1400	Other	10		
Burnett	Big Trade L	2638700	304			Other	8
Burnett	Clam R Fl	2654500	359	Other	90		
Burnett	Danbury Fl	2674500	256			Other	7
Burnett	Des Moines L	2674200	229			Other	6
Burnett	Devils L	2461100	1001	Other	27		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Burnett	Dunham L	2651800	243	Other	31		
Burnett	Elbow L	2463100	233	Other	7		
Burnett	Fish L	2464500	356	Other	10		
Burnett	Lipsett L	2678100	393	1 Year Pe	16		
Burnett	Little Mcgraw L	2477000	55	Other	8		
Burnett	Little Trade L	2639300	130			Other	4
Burnett	Little Yellow L	2674800	348	Other	83	Other	8
Burnett	Poquettes L	2491100	97	Other	12		
Burnett	Rice L	2677900	311			Other	8
Burnett	Rooney L	2493100	322	Other	40		
Burnett	Round L	2640100	204	Other	26		
Burnett	Sand L	2495100	962	Other	27		
Burnett	Twenty-Six L	2672500	230			Other	6
Burnett	Yellow L	2675200	2287	Other	769	Other	26
Chippewa	Axhandle L	2092500	84	Other	4		
Chippewa	Chippewa Falls Fl	2152600	282	Other	68		
Chippewa	Cornell Fl	2181400	577	Other	136	Other	11
Chippewa	Cornell L	2171000	194	Other	7		
Chippewa	Holcombe Fl	2184900	3890	Other	864	Other	36
Chippewa	L Wissota	2152800	6300	2 Year Pe	969	1-2 Year Pe	19
Chippewa	Long L	2351400	1052	1 Year Pe	509	Other	16
Chippewa	Old Abe L	2174700	1072	Other	249	Other	17
Chippewa	Otter L	2157000	661	Other	79		
Chippewa	Popple L	2173900	90	Other	12		
Chippewa	Round L	2169200	216	Other	9	Other	6
Chippewa	Town Line L	2172600	48	Other	2		
Clark	Mead L	2143900	320	Other	5	Other	4
Douglas	Amnicon L	2858100	426	Other	53	Other	9
Douglas	Bass L	2451700	126	Other	31		
Douglas	Bear L	2857700	49	Other	12	Other	2
Douglas	Beauregard L	2452400	93	Other	23		
Douglas	Bond L	2693700	293	Other	64		
Douglas	Clear L	2457700	36	Other	9		
Douglas	Dowling L	2858300	154	Other	38	Other	5
Douglas	Hoodoo L	2763900	32	Other	2		
Douglas	L Minnesuing	2866200	432	Other	53		
Douglas	L Nebagamon	2865000	914	Other	172		
Douglas	Leader L	2693800	165	Other	40		
Douglas	Lower Eau Claire	2741600	802	1 Year Pe	66	Other	14
Douglas	Lund L	2480300	75	Other	3		
Douglas	Lyman L	2856400	403	Other	50	Other	9
Douglas	Person L	2488600	172	Other	6		
Douglas	Peterson L	2488700	33	Other	2		
Douglas	Red L	2492100	258	Other	8		
Douglas	Round L	2493900	34	Other	2		
Douglas	Upper St Croix L	2747300	855	2 Year Pe	183		
Douglas	Whitefish L	2694000	832	Other	194		
Douglas	Wilson L	2600800	27	Other	2		
Dunn	Tainter L	2068000	1752	Other	400		
Eau Claire	Altoona L	2128100	840	Other	155	Other	7
Eau Claire	Dells Pond	2149900	739	Other	173	Other	13
Eau Claire	Halfmoon L	2125400	132	Other	22		
Eau Claire	L Eau Claire	2133200	860	Other	203	Other	7
Florence	Bass L	652500	50	Other	2		
Florence	Emily L	651600	191	Other	32		
Florence	Fay L	677100	282	Other	27		
Florence	Fisher L	704200	54	Other	3		
Florence	Halsey L	679300	512	Other	78		
Florence	Keyes L	672900	210	1 Year Pe	9		
Florence	Long L	677400	340	Other	10		
Florence	Patten L	653700	255	1 Year Pe	72		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Florence	Pine R Fl	651300	127	Other	31		
Florence	Sand L	591600	52	Other	3		
Florence	Sea Lion L	672300	125	Other	5		
Forest	Arbutus L	181400	158	Other	15		
Forest	Birch L	555500	468	Other	111		
Forest	Butternut L	692400	1292	1 Year Pe	349		
Forest	Crane L	388500	337	Other	42		
Forest	Crystal L	184200	63	Other	24		
Forest	Franklin L	692900	892	Other	84		
Forest	Ground Hemlock L	395900	88	Other	12		
Forest	Howell L	691800	177	Other	45		
Forest	Jungle L	377900	177	1 Year Pe	64		
Forest	King L	501700	33	Other	8		
Forest	L Lucerne	396500	1026	2 Year Pe	82		
Forest	L Metonga	394400	1991	1 Year Pe	828		
Forest	Lily L	376900	213	Other	168	Other	6
Forest	Little Long L	190500	102	Other	4		
Forest	Little Sand L	389700	229	Other	7		
Forest	Mole L	390600	73	Other	3		
Forest	Pine L	406900	1670	Other	177		
Forest	Quartz L	591000	47			Other	2
Forest	Range Line L	478200	82	Other	25		
Forest	Riley L	557100	213			Other	6
Forest	Roberts L	378400	414	Other	118	Other	9
Forest	Silver L	555700	334	Other	9	Other	8
Forest	Stevens L	683000	297	Other	104		
Forest	Trump L	479300	172	Other	20		
Forest	Van Zile L	608400	81	Other	17		
Forest	Wabikon L	556900	594			Other	11
Forest	Windfall L	373500	55			Other	3
Iron	Bearskull L	2265100	75	Other	10		
Iron	Big Pine L	2270700	632	Other	149	Other	12
Iron	Boot L	2297800	180	Other	6	Other	5
Iron	Catherine L	2309100	118	Other	5		
Iron	Cedar L	2309700	193	Other	36	Other	6
Iron	Charnley L	1840400	71	Other	3		
Iron	Clear L	2303700	67	Other	3	Other	3
Iron	Echo L	2301800	220	Other	28	Other	6
Iron	Fisher L	2307300	410	Other	51	Other	9
Iron	French L	1849600	92	Other	12	Other	4
Iron	Gile Fl	2942300	3384	Other	935	Other	33
Iron	Grand Portage L	2314100	144	Other	19	Other	5
Iron	Grant L	2312500	107	Other	4	Other	4
Iron	Hewitt L	2763300	78			Other	3
Iron	Island L	2945500	352	Other	84	Other	8
Iron	L Of The Falls	2298300	338	Other	42	Other	8
Iron	L Tahoe	2314000	37	Other	2	Other	2
Iron	Little Martha L	2314700	35	Other	2	Other	2
Iron	Long L	2303500	396	2 Year Pe	44	Other	9
Iron	Lower Springstead	2267000	95	Other	23	Other	4
Iron	Martha L	2314300	146	Other	36		
Iron	Mcdermott L	2296500	84	Other	15		
Iron	Mercer L	2313600	184	Other	24	Other	6
Iron	Moose L	2299300	269			Other	7
Iron	Mud L	2316400	56	Other	14		
Iron	Muskie L	2266800	81	Other	20	Other	3
Iron	N Bass L	1868900	180	Other	6	Other	5
Iron	Owl L	2307600	129	Other	17	Other	4
Iron	Oxbow L	2302300	80	Other	20	Other	3
Iron	Pardee L	2308000	206	Other	50	Other	6
Iron	Pike L	2299900	165	Other	40	Other	5

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Iron	Pine L	2949200	312	Other	218	Other	8
Iron	Plunkett L	2325200	48	Other	2		
Iron	Randall L	2318500	115	Other	37	Other	4
Iron	Rice L	2300600	125	Other	31	Other	4
Iron	Sandy Beach L	2316100	111	Other	15		
Iron	Saxon Falls Fl	2941100	41	Other	10	Other	2
Iron	Second Black L	2298600	60	Other	15		
Iron	Spider L	2306300	352	Other	77	Other	8
Iron	Stone L	2267200	82	Other	4	Other	3
Iron	Third Black L	2298800	68	Other	17		
Iron	Trude L	2295200	781	1 Year Pe	261	Other	14
Iron	Turtle-Flambeau F	2294900	13545	1 Year Pe	5289	Other	75
Iron	Upper Springstead	2267100	126	Other	31	Other	4
Iron	Virgin L	2304500	119			Other	4
Iron	Wilson L	2297000	162			Other	5
Langlade	Big Twin L	182200	60	Other	3		
Langlade	Deep Wood L	1445100	72			Other	3
Langlade	Duck L	981500	123	Other	5		
Langlade	Enterprise L	1579700	505	2 Year Pe	150	Other	10
Langlade	Greater Bass L	1445500	258			Other	7
Langlade	Jessie L	188700	35	Other	2		
Langlade	Lawrence L	997300	50	Other	2		
Langlade	Moccasin L	1005600	110	Other	4	Other	4
Langlade	Mueller L	194000	88	Other	4		
Langlade	Otter L	387200	83	Other	40		
Langlade	Pickerel L	388100	1256	Other	22		
Langlade	Rolling Stone L	389300	672	Other	15		
Langlade	Rose L	494200	112	2 Year Pe	12		
Langlade	Sawyer L	198100	149	Other	52		
Langlade	Summit L	1445600	282	Other	8	Other	7
Langlade	Upper Post L	399200	757	Other	90		
Langlade	Water Power L	1445400	22			Other	1
Langlade	White L	365500	166	Other	22		
Lincoln	Alexander L	1494600	677	Other	140	Other	12
Lincoln	Bass L	969600	100	Other	4		
Lincoln	Clear L	1555400	272	Other	8		
Lincoln	Crystal L	979100	109	Other	4		
Lincoln	Deer L	1519600	156	Other	19	Other	5
Lincoln	Grandfather Fl	1502400	350	Other	138		
Lincoln	Grandmother Fl	1503000	562	Other	190		
Lincoln	Jersey City Fl	1516000	404	2 Year Pe	244	Other	9
Lincoln	L Alice	1555900	1369	Other	344	Other	19
Lincoln	L Mohawksin	1515400	1910	Other	713	Other	23
Lincoln	L Nokomis	1516500	2433	Other	0	Other	27
Lincoln	Long L	1001000	132	Other	14		
Lincoln	Merrill Fl	1481100	164	Other	40		
Lincoln	Muskellunge L	1555500	167	Other	6		
Lincoln	Pesabic L	1481600	146	Other	20		
Lincoln	Pine L	1012100	134	Other	23	Other	5
Lincoln	Rice R Fl	1516400	920	Other	0	Other	15
Lincoln	Rice R Fl. Treaty	1516401	3764	Other	1401		
Lincoln	Seven Island L	1490300	132	Other	32	Other	5
Lincoln	Silver L	1017400	82	Other	20		
Lincoln	Somo L	1547700	472	Other	62	Other	10
Lincoln	Spirit R Fl	1506800	1664	Other	507	Other	22
Marathon	Big Eau Pleine Re	1427400	6830	Other	2565	Other	40
Marathon	L Wausau	1437500	1918	Other	44	Other	2
Marathon	Lost L	1407000	42	Other	2		
Marathon	Mayflower L	310500	98	Other	13		
Marathon	Mission L	1005400	107			Other	4
Marathon	Mud L	193800	70	Other	3		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Marathon	Norrie L	310100	99	Other	4		
Marathon	Pike L	1406300	205	Other	26		
Marathon	Wausau Dam L	1469700	284	Other	7		
Marinette	Big Newton L	498800	68	Other	17		
Marinette	Caldron Falls Res	545400	1018	Other	19	Other	16
Marinette	Eagle L	500200	56	Other	3		
Marinette	High Falls Reserv	540600	1498	Other	170		
Marinette	Hilbert L	501200	247	Other	31		
Marinette	Johnson Falls Fl	533300	68	Other	17		
Marinette	Little Newton L	502300	60	Other	15		
Marinette	Oneonta L	503300	66	Other	3		
Marinette	Sandstone Fl	531300	153	Other	19		
Marinette	Thunder L	533600	127	Other	5		
Oconto	Archibald L	417400	393	Other	69	Other	9
Oconto	Bass L	417900	142	1 Year Pe	30		
Oconto	Bear L	471200	78	Other	3		
Oconto	Boot L	418700	235	1 Year Pe	36	Other	6
Oconto	Chain L	464700	81	Other	3		
Oconto	Crooked L	462000	143	Other	5		
Oconto	Horn L	467100	132	Other	5		
Oconto	John L	470600	104	Other	5		
Oconto	Maiden L	487500	290	Other	41		
Oconto	Munger L	470900	97	Other	4	Other	4
Oconto	Reservoir Pond	466700	417	Other	11		
Oconto	Shay L	427300	50	Other	2		
Oconto	Surprise L	428100	70	Other	3		
Oconto	Townsend Fl	465000	476	Other	12		
Oconto	Waubee L	439500	124	Other	5		
Oconto	Wheeler L	439800	293	Other	112		
Oneida	Aldridge L	967400	134	Other	33		
Oneida	Alva L	968100	201	Other	49		
Oneida	Baker L	1546000	42	Other	10		
Oneida	Bass L	970000	74	Other	3		
Oneida	Bass L	1580300	124	Other	30	Other	4
Oneida	Bear L	1527800	312	Other	25		
Oneida	Bearskin L	1523600	400	1 Year Pe	520	Other	9
Oneida	Big Carr L	971600	213			Other	6
Oneida	Big Fork L	1610700	690	Other	320	Other	13
Oneida	Big L	1613000	865	Other	231	Other	14
Oneida	Big Stone L	1612200	548	Other	140	Other	11
Oneida	Birch L	1523800	180	Other	44		
Oneida	Bird L	972000	99	Other	24		
Oneida	Blue L	1538600	456	Other	108		
Oneida	Bolger L	973000	119	2 Year Pe	63		
Oneida	Boom L	1580200	437	Other	11	Other	10
Oneida	Booth L	1537800	207	Other	28	Other	6
Oneida	Bridge L	1516800	411	Other	0	Other	9
Oneida	Brown L	973700	98	Other	4		
Oneida	Buckskin L	2272600	634	1 Year Pe	85	Other	8
Oneida	Buffalo L	974200	104	Other	26		
Oneida	Burrows L	975000	156	Other	6	Other	5
Oneida	Carrol L	1544800	352	Other	59	Other	8
Oneida	Chain L	1598000	219	Other	44	Other	6
Oneida	Clear L	977100	36				
Oneida	Clear L	977200	30	Other	8	Other	2
Oneida	Clear L	977400	62	Other	15	Other	3
Oneida	Clear L	977500	846	Other	289	Other	14
Oneida	Clear L	2272555	212	Other	50	Other	6
Oneida	Clearwater L	1616400	351	Other	84	Other	8
Oneida	Columbus L	1616900	670	Other	158		
Oneida	Crescent L	1564200	612	2 Year Pe	520	Other	12

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Crooked L	1613300	176	Other	6		
Oneida	Cunard L	1590000	43	Other	11		
Oneida	Currie L	979300	96	Other	24		
Oneida	Dam L	1596900	744	Other	253	Other	13
Oneida	Deer L	1612300	177	Other	32	Other	5
Oneida	Diamond L	1537100	124	Other	30	Other	4
Oneida	Dog L	1590200	37	Other	2		
Oneida	Dog L	1612900	216	Other	39	Other	6
Oneida	E Horsehead L	1523000	184	Other	24	Other	6
Oneida	Echo L	1597800	107	Other	26	Other	4
Oneida	Fifth L	1571100	240	Other	161	Other	7
Oneida	Fish L	1570600	70	Other	17	Other	3
Oneida	Fourmile L	1610800	218	Other	58	Other	6
Oneida	Fourth L	1572000	258	Other	95	Other	7
Oneida	Franklin L	986000	161	Other	21	Other	5
Oneida	Fuller L	2272000	101	Other	4		
Oneida	Garth L	986600	114	Other	28		
Oneida	George L	1569600	435	2 Year Pe	172	Other	9
Oneida	Gilmore L	1589300	320	Other	52	Other	8
Oneida	Hancock L	1517900	259	Other	16	Other	7
Oneida	Hasbrook L	1589100	302	1 Year Pe	310	Other	8
Oneida	Hat Rapids Fl	1567325	650	Other	153		
Oneida	Hemlock L	989200	39	Other	10		
Oneida	Hill L	990200	30	Other	2		
Oneida	Hixon L	1568900	50	Other	2		
Oneida	Hodstradt L	990700	126	Other	5		
Oneida	Indian L	1598900	397	Other	81		
Oneida	Island L	1610500	295	Other	66	Other	7
Oneida	Jennie Webber L	1574300	226	Other	7		
Oneida	Julia L (Three La	1614300	401	Other	96	Other	9
Oneida	Kate Pier L	1586300	34	Other	8		
Oneida	Kathan L	1598300	189	Other	46		
Oneida	Katherine L	1543300	590	2 Year Pe	344	Other	11
Oneida	Kawaguesaga L	1542300	670	2 Year Pe	100	Other	12
Oneida	Killarney L	1520900	421	Other	11		
Oneida	L Creek	1580500	172	Other	42	Other	5
Oneida	L Julia (Rhinelan	995000	238	Other	49	Other	7
Oneida	L Seventeen	996100	172	Other	22		
Oneida	L Thompson	1569900	382	Other	54	Other	9
Oneida	Laurel L	1611800	232	Other	68	Other	6
Oneida	Little Bearskin L	1523500	164	Other	6		
Oneida	Little Carr L	998800	52	Other	3		
Oneida	Little Fork L	1610600	354	Other	145	Other	8
Oneida	Little Tomahawk L	1543900	160	Other	0	Other	5
Oneida	Lone Stone L	1605600	172			Other	5
Oneida	Long L	1001300	113	Other	28	Other	4
Oneida	Long L	1609000	620	Other	194	Other	12
Oneida	Long L	1618300	56	Other	14	Other	3
Oneida	Lost L	1575100	155	Other	38		
Oneida	Lower Kaubashine	1534800	187	Other	24	Other	6
Oneida	Lumen L	1002800	49	Other	12		
Oneida	Madeline L	1544700	159			Other	5
Oneida	Manson L	1517200	236	1 Year Pe	35	Other	6
Oneida	Maple L	1609900	144	Other	5		
Oneida	Margaret L	1615900	88	Other	22		
Oneida	Mars L	1577100	41	Other	10		
Oneida	Mccormick L	1526600	118	Other	16		
Oneida	Medicine L	1611700	372	Other	124	Other	9
Oneida	Mercer L	1538900	257	Other	62	Other	7
Oneida	Mid L	1542600	215	Other	7	Other	6
Oneida	Mildred L	1004600	191	Other	25		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Minocqua L	1542400	1360	2 Year Pe	151	Other	19
Oneida	Moccasin L	1612100	95	Other	23	Other	4
Oneida	Moen L	1573800	460	Other	56	Other	10
Oneida	Mud L	1544000	41	Other	10		
Oneida	Mud L	1612500	124	Other	5	Other	4
Oneida	Muskellunge L	1595600	284	Other	55	Other	7
Oneida	Muskie L	1524300	43	Other	2		
Oneida	N Nokomis L	1595800	476	Other	124	Other	10
Oneida	N Two L	1007500	146	Other	36		
Oneida	Nose L	1008200	40	Other	2		
Oneida	Oatmeal L	1597300	97	Other	4		
Oneida	Oneida L	1518200	255	Other	62	Other	7
Oneida	Paradise L	1009400	89	Other	4		
Oneida	Pelican L	1579900	3585	1 Year Pe	2604	Other	34
Oneida	Pickerel L	1590400	736	Other	22	Other	13
Oneida	Pier L	1529700	257	Other	33		
Oneida	Pine L	1012200	203	Other	49		
Oneida	Pine L	1581700	240	Other	58	Other	7
Oneida	Planting Ground L	1609100	1012	Other	268	Other	16
Oneida	Prairie L	1013000	58	Other	14		
Oneida	Rainbow Fl	1595300	2035	Other	790	Other	24
Oneida	Range Line L	1610300	123	Other	27	Other	4
Oneida	Rhinelander Fl	1580100	1326	Other	306	Other	19
Oneida	Rocky Run Fl	1525500	96	Other	24		
Oneida	Round L	1610400	150	Other	33	Other	5
Oneida	S Blue L	1015100	80	Other	3		
Oneida	S Pine L	1580700	77	Other	19		
Oneida	S Two L	1015500	214	Other	52		
Oneida	Sand L	1597000	540	Other	157	Other	11
Oneida	Second L	1572300	111	Other	27	Other	4
Oneida	Sevenmile L	1605800	503	Other	75	Other	10
Oneida	Shepard L	1576100	179	Other	6	Other	5
Oneida	Shishebogama L	1539600	716	Other	43	Other	6
Oneida	Skunk L	1533200	130	Other	32		
Oneida	Soo L	1018900	135	Other	33	Other	5
Oneida	Spider L	1586600	118	2 Year Pe	40	Other	4
Oneida	Spirit L	1612000	368	Other	83	Other	9
Oneida	Squash L	1019500	396	1 Year Pe	44		
Oneida	Squirrel L	1536300	1317	1 Year Pe	562	Other	19
Oneida	Stella L	1575700	405	Other	12	Other	9
Oneida	Stone L	1597600	188			Other	6
Oneida	Stone L	2272700	248	Other	60		
Oneida	Sunday L	1020600	88	Other	4		
Oneida	Sunset L	1572500	33	Other	8	Other	2
Oneida	Swamp L	1522400	296	Other	9		
Oneida	Swamsauger L	1528700	141	Other	75		
Oneida	Sweeney L	1589600	187	1 Year Pe	35	Other	6
Oneida	Tamarack L	1582200	99	Other	24		
Oneida	Third L	1572200	103	Other	25	Other	4
Oneida	Thunder L	1580400	172	Other	42	Other	5
Oneida	Thunder L	1618100	1768	2 Year Pe	135		
Oneida	Tim Lynn L	1597400	84	Other	21		
Oneida	Tom Doyle L	1586800	102	Other	14	Other	4
Oneida	Tomahawk L	1542700	3392	2 Year Pe	0	Other	33
Oneida	Tomahawk Treaty C	1542701	3552	Other	687		
Oneida	Townline L	1609600	152	Other	34	Other	5
Oneida	Turtle L	1587400	53	Other	3		
Oneida	Two Sisters L	1588200	719	Other	229	1-2 Year Pe	3
Oneida	Upper Kaubashine	1535000	190	Other	46	Other	6
Oneida	Venus L	1577000	65	Other	16		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Virgin L	1614100	276	Other	66	Other	7
Oneida	W Horsehead L	1522900	145			Other	5
Oneida	Walters L	1582800	61	Other	15		
Oneida	Whitefish L	1613500	205	Other	7	Other	6
Oneida	Wildwood L	1178600	28	Other	2		
Oneida	Willow Fl	1528300	5135	Other	1954	Other	42
Oneida	Willow L	1529500	395	Other	11	Other	9
Polk	Apple R Fl	2624200	639			Other	12
Polk	Balsam L	2620600	2054	Other	48		
Polk	Bear L	2452200	155	Other	38		
Polk	Bear Trap L	2618100	241	Other	8	Other	7
Polk	Big Butternut L	2641000	378	Other	74		
Polk	Big L	2615900	259	Other	8		
Polk	Big Round L	2627400	1015	Other	218		
Polk	Bone L	2628100	1781			Other	22
Polk	Church Pine L	2616100	107	Other	4		
Polk	Clear L	2623500	30				
Polk	Deer L	2619400	807			1-2 Year Pe	27
Polk	Half Moon L	2621100	579	Other	21		
Polk	Indianhead Fl	2634400	776	Other	182		
Polk	Little Butternut	2640700	189	Other	6		
Polk	Magnor L	2624600	231	Other	26		
Polk	N Pipe L	2485700	58	2 Year Pe	9		
Polk	N Twin L	2623900	135	Other	5		
Polk	Pike L	2624000	159	Other	6		
Polk	Pipe L	2490500	284	2 Year Pe	23		
Polk	Sand L	2495000	187	Other	6		
Polk	Wapogasset L	2618000	1186	Other	177	Other	18
Polk	Ward L	2599400	91	Other	12		
Polk	Wind L	2616000	38	Other	2		
Portage	Tree L	289400	74				
Price	Amik L	2268600	224			Other	6
Price	Bass L	2279800	84	Other	4		
Price	Bass L	2282200	58	Other	14	Other	3
Price	Big Dardis L	2244200	144	Other	19	Other	5
Price	Blockhouse L	2256800	242	Other	8		
Price	Butternut L	2283300	1006	Other	519	Other	16
Price	Cochram L	2264000	111	Other	4		
Price	Crane + Chase L	2237500	86	Other	21	Other	3
Price	Crowley Fl	2287200	422	Other	11	Other	9
Price	Deer L	2239100	145			Other	5
Price	Duroy L	2240100	379	Other	91	Other	9
Price	Elk L	2240000	88	Other	22	Other	3
Price	Grassy L	2238100	81	Other	20	Other	3
Price	Lac Sault Dore	2236800	561	Other	133	Other	11
Price	Long L	2239300	418	Other	100	Other	9
Price	Long L	2282000	241	Other	58	Other	7
Price	Lower Park Falls	2290100	71	Other	18	Other	3
Price	Miles L	2271100	32			Other	2
Price	Musser L	2245100	563	Other	68	Other	11
Price	N Spirit L	1515200	213	Other	48	Other	6
Price	Patterson L	1872500	70	Other	3		
Price	Pike L	2268300	806	Other	228	Other	14
Price	Pixley Fl	2288900	334	Other	80	Other	8
Price	Round L	2267800	726	Other	316	Other	13
Price	Schnur L	2284000	158	Other	39	Other	5
Price	Solberg L	2242500	859	Other	402	Other	14
Price	Spirit L	1513000	126	Other	5	Other	4
Price	Stone L	1513800	79	Other	3		
Price	Thompson L	2265900	111	Other	4	Other	4
Price	Turner L	2268500	149	Other	38	Other	5

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Price	Upper Park Falls	2290500	431			Other	9
Price	Upper Price L	2235300	43			Other	2
Price	Whitcomb L	2266100	44	Other	6	Other	2
Price	Wilson L	2239400	351	Other	84	Other	8
Price	Worcester L	2210900	100	Other	25		
Rusk	Amacoy L	2359700	278	Other	45	Other	7
Rusk	Audie L	2368700	128			Other	4
Rusk	Bass L	2090900	88	Other	4		
Rusk	Big Falls Fl	2230100	369	Other	88	Other	9
Rusk	Chain L	2350500	468	Other	59	Other	10
Rusk	Clear L	2350600	95	Other	2	Other	4
Rusk	Dairyland Reservo	2229200	1745	Other	399	Other	22
Rusk	Fireside Lakes	2349500	302	Other	73		
Rusk	Island L	2350200	526	Other	60	Other	11
Rusk	Ladysmith Fl	2228700	288	Other	69	Other	7
Rusk	Mccann L	2350400	133	Other	3	Other	5
Rusk	Perch L	2368500	23			Other	1
Rusk	Potato L	2355300	534	Other	103	Other	11
Rusk	Pulaski L	1875900	126	Other	39		
Rusk	Sand L	2353600	262	Other	30	Other	7
Rusk	Thornapple Fl	2227500	268	Other	65	Other	7
Sawyer	Barber L	2382300	238	1 Year Pe	61	Other	7
Sawyer	Barker L	2400000	238	Other	58	Other	7
Sawyer	Bennett L	1834800	37	Other	2		
Sawyer	Beverly L	2387200	9			Other	1
Sawyer	Black Dan L	2381900	128	Other	5	Other	4
Sawyer	Black L	2401300	129	Other	5	Other	4
Sawyer	Blaisdell L	2402200	356	Other	44	Other	8
Sawyer	Blue Gill L	1835600	26	Other	1		
Sawyer	Boos L	2425000	37	Other	9	Other	2
Sawyer	Burns L	2436400	37	Other	3	Other	2
Sawyer	Callahan L	2434700	106			Other	4
Sawyer	Clear L	1841300	77			Other	3
Sawyer	Connors L	2275100	429	Other	135	1-2 Year Pe	11
Sawyer	Durphee L	2396800	193	Other	50		
Sawyer	Evergreen L	2277600	200	Other	79	Other	6
Sawyer	Fawn L	2435900	23	Other	1	Other	1
Sawyer	Fishtrap L	2401100	216	Other	7	Other	6
Sawyer	Ghost L	2423000	372	2 Year Pe	91	Other	9
Sawyer	Grimh Fl	2385100	86			Other	3
Sawyer	Grindstone L	2391200	3111	2 Year Pe	418	1-2 Year Pe	5
Sawyer	Ham L	1852300	100	Other	25		
Sawyer	Hayward L	2725500	247	Other	31	Other	7
Sawyer	Holmes L	2419600	62			Other	3
Sawyer	Hunter L	2400600	126	Other	31	Other	4
Sawyer	Island L	2381800	67	Other	3	Other	3
Sawyer	L Chetac	2113300	1920	2 Year Pe	211		
Sawyer	L Chippewa	2399700	15300	Other	3935	Other	54
Sawyer	L Of The Pines	2275300	273	Other	66	Other	7
Sawyer	L Placid	2436500	160	Other	24	Other	5
Sawyer	L Winter	2381100	676	Other	15	Other	12
Sawyer	Lac Courte Oreill	2390800	5039	1 Year Pe	677	Other	27
Sawyer	Lewis L	1860200	52	Other	3		
Sawyer	Little Round L	2395500	229	Other	6		
Sawyer	Little Sissabagam	2394100	299			Other	8
Sawyer	Loretta L	2382700	126			Other	4
Sawyer	Lost Land L	2418600	1304	Other	120	Other	19
Sawyer	Lovejoy L	2395900	76	Other	19		
Sawyer	Lower Clam L	2429300	203	Other	19	Other	6
Sawyer	Mason L	2277200	190	Other	87	Other	6
Sawyer	Meadow L	2424800	39	Other	10	Other	2

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Sawyer	Mirror L	1866900	38	Other	2		
Sawyer	Moose L	2420600	1670	Other	382	Other	22
Sawyer	Mud L	2434800	480	Other	12	Other	10
Sawyer	Nelson L	2704200	2503	Other	285		
Sawyer	North L	2436000	129	Other	5	Other	4
Sawyer	Osprey	2395100	208	Other	13		
Sawyer	Partridge Crop L	2424600	45	Other	11	Other	2
Sawyer	Perch L	1873600	129	Other	17	Other	4
Sawyer	Radisson Fl	2397400	255	Other	62	Other	7
Sawyer	Round L	2395600	3054	2 Year Pe	424	Other	31
Sawyer	Sand L	2393200	928	Other	364	1-2 Year Pe	4
Sawyer	Sissabagama L	2393500	719	2 Year Pe	134	Other	13
Sawyer	Smith L	2726100	323	Other	12		
Sawyer	Spider L	2435700	1454	Other	260	Other	20
Sawyer	Spring L	2724900	220	Other	6		
Sawyer	Teal L	2417000	1049	1 Year Pe	157	Other	16
Sawyer	Teal R Fl	2416900	75	Other	19	Other	3
Sawyer	Tiger Cat Fl	2435000	819	Other	97	Other	14
Sawyer	Whitefish L	2392000	786	Other	117	Other	14
Sawyer	Windfall L	2046500	102	Other	84		
Sawyer	Windigo L	2046600	522	1 Year Pe	153		
St. Croix	Cedar L	2615100	1100	1 Year Pe	500	Other	17
Taylor	Anderson L	2165700	43	Other	2		
Taylor	Chelsea L	2200400	59	Other	3		
Taylor	Chequamegon Water	2160700	2714	Other	35		
Taylor	Diamond L	1757200	49	Other	12		
Taylor	Esadore L	1764000	46	Other	2		
Taylor	Hulls L	1762700	67	Other	3		
Taylor	James L	1468900	50	Other	2		
Taylor	Kathryn L	2166100	62	Other	10		
Taylor	Mondeaux Fl	2193300	416	Other	11	Other	9
Taylor	N Harper L	2204000	54	Other	13	Other	3
Taylor	Rib L	1469100	320	2 Year Pe	25	Other	8
Taylor	Richter L	1760000	45	Other	2		
Taylor	S Harper L	2204100	80	Other	11		
Taylor	Sackett L	1764500	63	Other	9		
Taylor	Shearer L	2197600	21	Other	1		
Taylor	Wellington L	1467800	43	Other	2		
Vilas	Alder L	2329600	274	Other	177	Other	7
Vilas	Allequash L	2332400	426	Other	60	Other	9
Vilas	Alma L	967900	55	Other	8	Other	3
Vilas	Annabelle L	2953800	213	2 Year Pe	147	Other	6
Vilas	Anvil L	968800	398	2 Year Pe	125		
Vilas	Apeekwa L	2269400	188	Other	46	Other	6
Vilas	Armour L	2953200	320	Other	77	Other	8
Vilas	Arrowhead L	1541500	99	Other	13	Other	4
Vilas	Averill L	2956700	71	Other	0	Other	3
Vilas	Ballard L	2340700	505	Other	218	Other	10
Vilas	Bass L	1604200	266	Other	8	Other	7
Vilas	Bear L	2335400	76	Other	3	Other	3
Vilas	Beaver L	2960600	68	Other	3		
Vilas	Belle L	2955700	53	Other	13	Other	3
Vilas	Benson L	2327100	28	Other	7	Other	2
Vilas	Big Arbor Vitae L	1545600	1090	Other	784	1-2 Year Pe	22
Vilas	Big Crooked L	2338800	682	Other	221	Other	13
Vilas	Big Donahue L	971700	92	Other	4		
Vilas	Big Gibson L	1835200	116	Other	28	Other	4
Vilas	Big Hurst L	2756000	48	Other	2		
Vilas	Big Kitten L	2336700	55	Other	3	Other	3
Vilas	Big L (Boulder Jct)	2334700	835	Other	297	Other	14

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Big L (Mi Border)	2963800	771	Other	490	Other	11
Vilas	Big Muskellunge L	1835300	930	1 Year Pe	521	Other	15
Vilas	Big Portage L	1629500	638	1 Year Pe	466		
Vilas	Big Sand L	1602600	1418	Other	160	Other	20
Vilas	Big St Germain L	1591100	1617	Other	505	Other	21
Vilas	Bills L	1835500	37	Other	0	Other	0
Vilas	Birch L	2311100	528	Other	83	Other	11
Vilas	Black Oak L	1630100	584	Other	14		
Vilas	Boot L	1619100	284	Other	36	Other	7
Vilas	Boot L	2756400	29	Other	2	Other	2
Vilas	Boulder L	2338300	524	Other	241	Other	11
Vilas	Brandy L	1541300	110	Other	4	Other	4
Vilas	Carpenter L	976100	333	Other	42		
Vilas	Catfish L	1603700	1012	Other	421	Other	16
Vilas	Circle Lily L	2326700	223	Other	29	Other	6
Vilas	Clear L	2329000	555	Other	175	Other	11
Vilas	Cleveland L	2758600	32	Other	2		
Vilas	Cochran L	2963500	126	Other	5	Other	4
Vilas	Crab L	2953500	949	Other	286	Other	15
Vilas	Crampton L	2759000	59	Other	3		
Vilas	Cranberry L	1603800	956	Other	573	Other	15
Vilas	Crystal L	1842400	88				
Vilas	Dead Pike L	2316600	297	2 Year Pe	19	Other	7
Vilas	Deer L	980600	65	Other	3		
Vilas	Deer L	2311500	37	Other	2		
Vilas	Deerskin L	1601300	309	Other	39	Other	8
Vilas	Diamond L	1844700	122	Other	5	Other	4
Vilas	Dorothy Dunn L	1845600	70	Other	3	Other	3
Vilas	Duck L	1599900	108	Other	29	Other	4
Vilas	E Ellerson L	2331300	136	Other	33	Other	5
Vilas	E Witches L	982500	34	Other	2		
Vilas	Eagle L	1600200	572	Other	241	Other	11
Vilas	Eleanore L	1631500	28	Other	7	Other	2
Vilas	Erickson L	983600	106	Other	23		
Vilas	Escanaba L	2339900	293	1 Year Pe	272	1-2 Year Pe	5
Vilas	Fawn L	1591000	22	Other	6	Other	1
Vilas	Fawn L	2328900	74	Other	15	Other	3
Vilas	Finger L	984700	90	Other	12		
Vilas	Fishtrap L	2343200	329	Other	82	Other	8
Vilas	Forest L	2762200	466	Other	201		
Vilas	Found L	1593800	326	Other	41	Other	8
Vilas	Frank L	985900	141	Other	5		
Vilas	Harmony L	988300	88	Other	4		
Vilas	Harris L	2958500	507	Other	253	Other	10
Vilas	Helen L	2964400	111	Other	27	Other	4
Vilas	Hiawatha L	2328400	36	Other	2		
Vilas	High L	2344000	734	Other	168	Other	13
Vilas	Horsehead L	2953100	234	1 Year Pe	146	Other	6
Vilas	Hunter L	991700	184	Other	24		
Vilas	Imogene L	586800	66	Other	3		
Vilas	Indian L	2764400	68			Other	3
Vilas	Irving L	2340900	403	Other	11	Other	9
Vilas	Island L	2334400	1023	Other	463	Other	16
Vilas	Jag L	1855900	158	Other	39	Other	5
Vilas	Jenny L	1856400	59	Other	15		
Vilas	Johnson L	1541100	78	Other	3	Other	3
Vilas	Jute L	1857400	194			Other	6
Vilas	Katinka L	2957000	172	Other	42		
Vilas	Kentuck L	716800	957	1 Year Pe	253	1-2 Year Pe	35
Vilas	Kenu L	1629800	73	Other	3		
Vilas	Kildare L	1631700	54	Other	3	Other	3

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	L Content	1592000	244	Other	59	Other	7
Vilas	L Laura	995200	599	1 Year Pe	391	Other	12
Vilas	Lac Des Fleurs	1630900	49	Other	2		
Vilas	Lac Vieux Desert	1631900	4300	1 Year Pe	217	Other	25
Vilas	Little Arbor Vita	1545300	534	Other	83	Other	11
Vilas	Little Crooked L	2335500	153	Other	6	Other	5
Vilas	Little Horsehead	2953000	52	Other	13		
Vilas	Little John L	2332300	166	1 Year Pe	478	Other	5
Vilas	Little Papoose L	2328200	46	Other	2	Other	2
Vilas	Little Portage L	1629200	170	Other	41	Other	5
Vilas	Little Presque Is	2959700	85	Other	3	Other	3
Vilas	Little Rice L	2338900	59	Other	3	Other	3
Vilas	Little Spider L	1540400	235	Other	24	Other	6
Vilas	Little St Germain	1596300	980	2 Year Pe	299	Other	16
Vilas	Little Star L	2334300	244	Other	45	Other	7
Vilas	Little Trout L	2321600	978	Other	68	Other	5
Vilas	Lone Pine L	2961600	142	Other	19	Other	5
Vilas	Long L	1602300	872	Other	426	Other	15
Vilas	Loon L	1001600	31	Other	2		
Vilas	Lost Canoe L	2339800	249	Other	79		
Vilas	Lost L	1593400	544	Other	67	Other	11
Vilas	Lower Aimer L	2955000	34	Other	2		
Vilas	Lower Buckatabon	1621000	352	Other	13	Other	8
Vilas	Lower Gresham L	2330300	149			Other	5
Vilas	Lynx L	1600000	22	Other	7	Other	1
Vilas	Lynx L	2954500	339	1 Year Pe	67	Other	8
Vilas	Mamie L	2964100	400	Other	265	Other	9
Vilas	Manitowish L	2329400	506	Other	93	Other	10
Vilas	Marshall L	1626600	87	Other	4	Other	3
Vilas	Mccullough L	2960400	216	Other	7	Other	6
Vilas	Mermaid L	2768100	60	Other	8		
Vilas	Meta L	1004400	175	Other	6		
Vilas	Middle Ellerson L	1866100	60			Other	1
Vilas	Middle Gresham L	2330700	53	Other	3	Other	3
Vilas	Moccasin L	1005700	83	Other	11	Other	3
Vilas	Moon L	1005800	131	Other	17	Other	4
Vilas	Morton L	2960300	163	Other	6	Other	5
Vilas	Murphy L	2769700	81	Other	3	Other	3
Vilas	Muskellunge L	1596600	272	Other	34	Other	7
Vilas	N Crab L	2953400	56	Other	14	Other	3
Vilas	N Turtle L	2310400	369	Other	200	Other	9
Vilas	N Twin L	1623800	2788	Other	0	Other	29
Vilas	Nelson L	1007600	104	Other	4	Other	4
Vilas	Nelson L	1869900	27			Other	2
Vilas	Nixon L	2341200	110	Other	4	Other	4
Vilas	No Mans L	2312100	225	Other	54	Other	6
Vilas	Norwood L	1008100	125	Other	8		
Vilas	Oswego L	1871800	66			Other	3
Vilas	Otter L	1600100	196	Other	68	Other	6
Vilas	Oxbow L	2954800	511	Other	227	Other	10
Vilas	Pallette L	1872100	173			Other	5
Vilas	Palmer L	2962900	635	Other	70	Other	12
Vilas	Papoose L	2328700	428	Other	127	Other	9
Vilas	Partridge L	2341500	228	Other	7	Other	6
Vilas	Pickerel L	1619700	293	Other	32	Other	7
Vilas	Pine Island L	1011900	79	Other	3	Other	3
Vilas	Pioneer L	1623400	427	Other	53	Other	9
Vilas	Plum L	1592400	1033	2 Year Pe	335	1-2 Year Pe	7
Vilas	Plum L	2963200	225	Other	9		
Vilas	Presque Is. Treat	2956501	1571	Other	316		
Vilas	Presque Isle L	2956500	1280	Other	0	Other	18

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Rainbow L	2310800	146	Other	36	Other	5
Vilas	Razorback L	1013800	362	Other	232	Other	8
Vilas	Rest L	2327500	608	Other	206	Other	12
Vilas	Rice L	1618600	71	Other	18	Other	3
Vilas	Roach L	1014000	51	Other	13	Other	2
Vilas	Roach L	2772500	125	Other	1		
Vilas	Rock L	2311700	122	Other	30	Other	4
Vilas	Rosalind L	1877900	43			Other	2
Vilas	Round L	2334900	116	Other	15	Other	4
Vilas	Rudolph L	2954300	79			Other	3
Vilas	Rush L	2343600	44	Other	11	Other	2
Vilas	S Turtle L	2310200	454	Other	140	Other	10
Vilas	S Twin L	1623700	642	Other	0	Other	12
Vilas	Sanford L	2335300	88	1 Year Pe	27	Other	3
Vilas	Scattering Rice L	1600300	267	Other	13	Other	7
Vilas	Sherman L	1880700	123	1 Year Pe	39	Other	4
Vilas	Smoky L	1018300	610			Other	0
Vilas	Snipe L	1018500	239	2 Year Pe	258	1-2 Year Pe	8
Vilas	Sparkling L	1881900	154	Other	44	Other	5
Vilas	Spectacle L	717400	171	Other	6		
Vilas	Spider L	2329300	272	Other	55	Other	7
Vilas	Spring L	2964800	205	Other	50		
Vilas	Squaw L	2271600	785	1 Year Pe	255	Other	14
Vilas	Star L	1593100	1206	1 Year Pe	396	Other	18
Vilas	Stateline L	2952100	199	Other	2		
Vilas	Stewart L	1020000	39	Other	10		
Vilas	Stone L	2328800	139	Other	28	Other	5
Vilas	Sturgeon L	2327200	32	Other	8	Other	2
Vilas	Sumach L	1020500	60	Other	3	Other	3
Vilas	Sunset L	1020900	185	Other	6	Other	6
Vilas	Tenderfoot L	2962400	437	2 Year Pe	201	Other	8
Vilas	Towanda L	1022900	146	Other	19	Other	5
Vilas	Trout L	2331600	3816	1 Year Pe	879	1-2 Year Pe	9
Vilas	Twin Island L	2959300	205	Other	7	Other	6
Vilas	Twin L Treaty Cha	1623801	3430	Other	936		
Vilas	Upper Aimer L	2955100	33	Other	2		
Vilas	Upper Buckatabon	1621800	494	Other	19	Other	10
Vilas	Upper Gresham L	2330800	366	Other	52	Other	9
Vilas	Van Vliet L	2956800	220	Other	0	Other	6
Vilas	Vance L	2327300	30	Other	8	Other	2
Vilas	Vandercook L	1176400	95	Other	4		
Vilas	Verna L	1540300	77			Other	3
Vilas	Voyageur L	1603400	130	Other	29	Other	4
Vilas	W Bay L	2964000	368	2 Year Pe	120	Other	4
Vilas	W Plum L	1592500	75	Other	19	Other	3
Vilas	W Witches L	1177500	30	Other	2		
Vilas	Watersmeet L	1599400	100	Other	22	Other	4
Vilas	White Birch L	2340500	112	Other	25	Other	4
Vilas	White Sand L	2339100	734	1 Year Pe	147	Other	13
Vilas	Wild Rice L	2329800	379	Other	33	Other	7
Vilas	Wildcat L	2336800	305	1 Year Pe	103	Other	8
Vilas	Wolf L	2336100	393	Other	236	Other	9
Vilas	Yellow Birch L	1599600	202	Other	133	Other	6
Washburn	Balsam L	2112800	295	1 Year Pe	79		
Washburn	Bass L	1833300	130	Other	32		
Washburn	Bass L	2451300	144	Other	5		
Washburn	Bass L	2451900	188	1 Year Pe	65	Other	6
Washburn	Bean L	2718500	100	Other	4		
Washburn	Beartrack North L	3000351	33	Other	8		
Washburn	Beartrack South L	2452300	65	Other	16		
Washburn	Big Bass L	2453300	203	Other	26		

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Washburn	Birch L	2113000	368	Other	46		
Washburn	Cable L	2456100	185	Other	24		
Washburn	Chippanazie L	2722800	58	Other	14		
Washburn	Colton Fl	2702100	58	Other	14		
Washburn	Deep L	1844000	43	Other	11		
Washburn	Dunn L	2709800	193	Other	47		
Washburn	Gilmore L	2695800	389	Other	10		
Washburn	Island L	2470600	276	Other	35		
Washburn	L Nancy	2691500	772	Other	92	Other	14
Washburn	Leach L	2474400	30	Other	8		
Washburn	Leisure L	2475000	75			Other	3
Washburn	Little Long L	2664500	112	Other	4		
Washburn	Little Mud L	2107100	71	Other	18		
Washburn	Little Sand L	2477700	74	Other	10		
Washburn	Little Stone L	1862400	27	Other	2		
Washburn	Long L	2106800	3290	2 Year Pe	980		
Washburn	Matthews L	2710800	263	Other	5	Other	7
Washburn	Mclain L	2481600	150	Other	20		
Washburn	Middle Mckenzie L	2706500	530	Other	64	Other	11
Washburn	Minong Fl	2692900	1564	Other	790		
Washburn	Mud L	2107700	103	Other	4		
Washburn	Pavlas L	2488100	44	Other	2		
Washburn	Rice L	2696000	132	Other	32		
Washburn	Ripley L	2492600	190	Other	25		
Washburn	S Twin L	2494500	115	Other	15		
Washburn	Shell L	2496300	2580	Other	340	Other	28
Washburn	Silver L	2496900	188	Other	24		
Washburn	Slim L	2109300	224	Other	29		
Washburn	Spring L	1882900	42	Other	2		
Washburn	Spring L	2498600	211	Other	27		
Washburn	Stone L	1884000	39	Other	2		
Washburn	Stone L	1884100	523	Other	61		
Washburn	Tozer L	2502000	36	Other	2		
Washburn	Trego L	2712000	451	Other	55	Other	10
Washburn	Un L	2542800	30	Other	2		